Office of River Protection
Project Managers' Meeting Minutes

2440 Stevens Center
Richland, Washington

June15, 2016

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CONCURRENCE SIGNATURES

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Project Managers' Meeting.

Wahed Abdul, DOE-ORP — Date: 7/21/16.

Jeff Bruggeman, DOE-ORP — Date: 7/21/16

Joni Grindstaff, DOE-ORP — Date: 7/21/16

Paul Hernandez, DOE-ORP — Date: 7/21/16

Jeremy Johnson, DOE-ORP — Date: 7/21/16

Chris Kemp, DOE-ORP — Date: 7-21-2016

Dan Knight, DOE-ORP — Date: 7/21/16

Steve Pfaff, DOE-ORP — Date: 7/21/2016

Glyn Trenchard, DOE-ORP — Date: 7-21-16

Richard Valle, DOE-ORP — Date: 7/21/2016

Jason Young, DOE-ORP — Date: 7/21/16

Jeff Lyon, Project Manager,
Washington State Department of Ecology

Date: 8-2-16

Dan McDonald, Project Manager,
Washington State Department of Ecology

Date: 7-26-16

Stephanie Schleif, Project Manager,
Washington State Department of Ecology

Date: 8/2/16

TRI-PARTY AGREEMENT MILESTONE REVIEW AND MONTHLY SUMMARY REPORT

1.0 ADMINISTRATIVE ITEMS/MILESTONE STATUS

Upcoming meetings

The next project managers meeting is scheduled for July 21, 2016, from 9:00 a.m. to 10:15 a.m. at the U.S. Department of Energy (DOE) Office of River Protection (ORP) office in Richland, Washington. The ORP quarterly milestone review is scheduled for August 18, 2016, from 8:30 a.m. to 11:30 a.m. at the Ecology office in Richland, Washington.

Recent items entered/to be entered into the Administrative Record

DOE-ORP provided the monthly Tri-Party Agreement (TPA) and Consent Decree (CD) reports, which will be submitted to the Administrative Record (AR).

Tri-Party Agreement milestone status

ORP stated that the semi-annual project compliance report is on track to be submitted by the end of July 2016 (M-062-01AG). ORP stated that the annual interim measures meeting associated with milestone M-045-56L will be scheduled for some time in July 2016. ORP is meeting internally next week, and then a pre-meeting with Washington State Department of Ecology (Ecology) is scheduled for June 29, 2016 to discuss the topics for the annual interim measures meeting.

Office of River Protection/Washington State Department of Ecology Tri-Party Agreement and Consent Decree agreements, issues and action items – June 2016

The action items were discussed and updated as follows (see agreements, issues and action items table):

Action No. 1 (TF-15-10-02)

ORP noted that Liquid Effluent Retention Facility (LERF)/Effluent Treatment Facility (ETF) is operating. ORP stated that a meeting was held with Ecology about a month ago, and an outline was provided for future discussions regarding the system planning for LERF/ETF to support Direct Feed Low Activity Waste (DFLAW). ORP noted that Action No. 4 will be tied into the discussion. This action remains open.

Action No. 2 (TF-15-10-03)

This action was closed last month.

Action No. 3 (TF-16-01-01)

ORP stated that this action will remain open until the 30 percent design review for Low Activity Waste Pretreatment System (LAWPS) is held on July 13-14, 2016. ORP stated that Ecology will be invited to attend the 30 percent design review, and two days prior to the design review, the

calculations and drawings will be posted online. Ecology asked if it will be able to access the online site. ORP responded that it is working on access for Ecology, and a thumb drive would be provided to Ecology if access was not available. This action remains open.

Action No. 4 (TF-16-01-02)

ORP noted that this action is tied to the discussions planned under Action No. 1. This action remains open.

Action No. 5 (TF-16-01-03)

ORP stated that this action corresponds to the legacy duct work excavation that was done in AX Single-Shell Tank (SST) Farm, and the information will be provided during the annual interim measure meeting that will be held with Ecology in July 2016. This action remains open.

Action No. 6 (TF-16-05-01)

ORP stated that information is being gathered to provide a written response to Ecology regarding SST T-112. Ecology stated that the concern with tank T-112 is it's not listed as a water intrusion tank, and it's covered by the surface barrier in T Farm. Ecology added that the effort at tank T-112 would be better termed as a waste evaporation effort. ORP stated that on the video there are a couple of individual pools of a water-like substance, more watery than supernate, and the assumption was it was intrusion.

Ecology commented that SST T-112 was one of the six tanks that didn't meet interim stabilization, and leak detection is required. Ecology added that tank T-112 is next to SST T-111, where the ventilation system is located, and ORP may be trying to keep making progress on getting more liquid out of tank T-112, which is a good idea. Ecology stated that it is not clear why ORP chose SST T-112 as an intrusion tank, and there may be issues related to the effort being an active retrieval, and there are condensation issues and the tank can't be ventilated. Ecology added that the initial concerns for understanding the basis for designating SST T-112 as an intrusion tank are also related to permitting aspects. This action remains open.

2.0 SYSTEM PLAN

ORP noted that System Plan 7 data is still being carried in the monthly report. Ecology responded that there had been no direction regarding System Plan 7 data, and it needs to remain in the summary report until further notice. ORP stated that item No. 16 in the monthly summary report is the first item relative to System Plan 8. ORP added that there have been discussions regarding scenario selection, and in general, there is a complete list of scenarios to evaluate and prioritize. ORP stated that the milestone is on schedule to meet the October 31, 2016 due date for scenario selection discussions.

3.0 ACQUISITION OF NEW FACILITIES

ORP stated that the disputes regarding M-090-13 and M-047-07 have been extended to June 30, 2016, and there were no other changes to report.

4.0 SUPPLEMENTAL TREATMENT AND PART B PERMIT APPLICATIONS

ORP noted that as discussed last month, M-062-45ZZ and ZZ-A are in dispute. ORP stated that the status of the remaining milestones has not changed from last month, and the significant past accomplishments and issues have not been updated.

5.0 242-A EVAPORATOR STATUS

ORP reported that the 242-A Evaporator is currently in an outage, and electrical upgrades to the variable frequency drive are being done. The control room has been emptied and gutted, and new control room equipment and furniture is being installed. Ecology asked if a full overhaul is being done on the control room. ORP responded that everything is being overhauled except the floor, which is a computer floor, and the panels were lifted and rearranged. ORP noted that the new control room equipment is similar to the control room upgrade that was done at 274-AW. Ecology asked when the outage will be finished. ORP indicated it would be about two weeks, and a tour will be set up when the upgrades are completed.

ORP stated that the next evaporator campaign (EC) 06 is tentatively scheduled for early August 2016. ORP noted that the waste was successfully transferred last week over to feed Double-Shell Tank (DST) AW-102, and it's ready to go.

Note: See discussion under CD regarding the spare reboiler requirement status.

6.0 LIQUID EFFLUENT RETENTION FACILITY/200 AREA EFFLUENT TREATMENT FACILITY

ORP stated that the volume in LERF Basin 43 decreased from last month of about 7.1-7.2 million gallons to 6.55 million gallons. ORP noted that the monthly summary report states that 560,000 gallons have been processed in fiscal year (FY) 2016, and as of the end of May 2016, the volume is about 675,000 gallons processed. ORP pointed out that the significant past accomplishments reflect that good progress is being made at LERF/ETF.

ORP reported that the Class 1 prime modification package was signed by Ecology.

ORP stated that after the initial 2 million gallon reduction is completed in Basin 43, a two-week maintenance outage is planned, if needed, and the next 2 million gallon reduction in Basin 43 will follow. ORP added that the activities for Basin 43 are expected to be done within FY 2016. ORP stated that the remaining area for special protective coating (SPC) repair is the concentrated chemical storage tank berm. ORP noted that that berm area does not require secondary containment, and it was not identified as a critical area of need.

Ecology asked if the secondary treatment train at ETF is running. ORP responded that the 675,000 gallons was run through the main treatment train and then a backlog was incurred in the secondary treatment. The main treatment train was shut down to process the secondary through the thin film dryer, and all the prep work was completed this week to restart the main treatment train. The main treatment train is expected to be restarted either late today or tomorrow, and the volume processed will increase again.

7.0 TANK SYSTEM UPDATE

Double-Shell Tank Integrity - ORP noted that several annulus video inspections were done during the month, and the DST videos are complete. A report is being prepared that will be shared with Ecology.

Ecology initiated a discussion regarding the upgrades that are needed to support startup of DFLAW. Ecology indicated that the design of the upgrades was supposed to start in May 2016, but it has been deferred to July 2016. Ecology noted that there is some permitting work needed that is associated with the upgrades. ORP responded that there are issues being resolved with procurement regarding the contract, which has caused a delay. ORP stated that the issues center on using a design/build contract as a whole or a design contract that is layered with a consecutive construction contract. ORP added that the overall scope of tank farm upgrades to support DFLAW is not being delayed.

Ecology stated that as the design information becomes available, discussions will be needed about updating the description in the Part B Permit application material. ORP responded that there is ongoing communication regarding permitting, and a permitting plan is being developed. ORP noted that there have been a couple of meetings with Washington River Protection Solutions LLC (WRPS) and Ecology to discuss permitting.

Ecology asked if all the upgrades that are needed will go from tank farms to the fence line, and if there is a list of all the upgrades to tanks, valves, pits and pipes. ORP responded that it has not been fully determined as to where the line will be. ORP stated that the transfer line will go to LAWPS and eventually to the Effluent Management Facility (EMF) and on, and then come back, so it has not been determined who will do the construction and who will be the owners. ORP noted that it may be advantageous to draw the line in a different spot than the fence line for permitting purposes. Ecology suggested that One System should be involved. ORP responded that One System is tracking the overall performance of the upgrades along with LAWPS. ORP noted that the upgrade design and planning is not pushing anything critical path.

ORP stated that there is a scoping diagram of what is planned for the upgrades. ORP stated that there are five tanks that will get some upgrades, and there will be some new pumps and ENRAFs and a few new jumpers. ***ORP offered an informal action to provide information to Ecology regarding the upgrades planned in support of DFLAW.***

Single-Shell Tanks Integrity – ORP stated that the SST video inspections are getting done and are expected to be completed on schedule. ORP noted that there is only one video team, and they focused on the DST annulus due to convenience and spacing.

8.0 SINGLE-SHELL TANK INTEGRITY ASSURANCE

ORP stated the Independent Qualified Registered Professional Engineer (IQRPE) assessment is on schedule.

9.0 IN-TANK CHARACTERIZATION SUMMARY

ORP stated that preparations are being made to take a core and grab sample in DST AP-107 next week.

10.0 TANK OPERATIONS CONTRACT OVERVIEW

ORP pointed out that the vapor impacts for FY 2015 were incorporated, which is reflected in the spike in the current month (April) schedule performance index (SPI) and cost performance index (CPI). ORP noted that the contract to date for SPI and CPI are more leveled out. ORP added that the trend continues with base operations (5.01). ORP stated that 5.01 has slowly been carrying a variance because of being less efficient than planned, and part of that is due to the vapor issue. ORP has been in negotiations with WRPS on the impact regarding the vapor issue, and a one point adjustment was made for FY 2015, and another adjustment was just done for the 2016 work scope.

ORP reported that the unfavorable schedule variance for retrieve and close (5.02) was due to the availability of construction resources. The construction forces were focused on DST AY-102 during the reporting time period, which resulted in a delay in SSTs A/AX farms.

ORP stated that there was a schedule variance with waste feed delivery (5.03) that was associated with the glass testing. Ecology asked about the length of the schedule delay. ***ORP responded that it would follow up and provide Ecology the specifics of the glass testing schedule delay.***

ORP noted that treat waste (5.5) covers the LAWPS. ORP stated that the fiscal year schedule variance was primarily driven by the change to move from more of a passive ventilation system, which was hydrogen diffusion, to an active ventilation system. ORP stated that the current month unfavorable schedule variance is primarily due to the delay in the procurement and fabrication of the full-scale ion exchange and the 1/9 scale testing activities. There is not an overall delay to the project or to the milestones. ORP stated that the cost variance was due to the contractor claiming full procurement of the full scale ion exchange testing and materials when the purchase orders were released to the vendors, but the materials had not been received or accepted. ORP noted that the appropriate process is to have onsite receipt as the acceptance. ORP stated that there is no overall impact, and the accrual will be corrected.

11.0 SINGLE-SHELL TANK CLOSURE AND RETRIEVAL PROGRAM

Closure Program - ORP noted that as stated earlier, an internal meeting will be held next week, followed by a pre-meeting with Ecology on June 29, 2016, to prepare for the annual meeting in July 2016 (M-045-56L). ORP stated that the annual interim measures meeting in July will essentially cover the SSTs A/AX direct pushes and dry well logging that was done in FY 2015, and activities at SST T-111 will also be discussed.

ORP stated M-045-62 is on schedule. M-045-61A was sent to Ecology for review, comment, record (RCR) for the final remedial field investigation (RFI) the first week in June 2016. ORP stated that the comments were resolved, and the path forward is to submit the RFI report by the end of December 2016. ORP is finalizing the RFI based on the RCR.

ORP noted that M-045-82 is currently in dispute, and the dispute has been extended to August 1, 2016. ORP stated that it proposed lining up the RFI and the remedial investigation (RI), and Ecology provided a counter-proposal last week. Ecology indicated that it is discussing the proposals with the lawyers, and feedback will be provided in two weeks. ORP reported M-045-

83 is to be missed, M-045-84 is at risk and depending on the outcome of M-045-82 other milestones could be impacted.

ORP reported that M-045-92 is in dispute at the Inter-Agency Management Integration Team (IAMIT) level, and tentative agreement has been reached if the change package language is revised. Ecology provided its input, and ORP has agreed with Ecology's changes. ORP has also proposed some clarification on the second page of the change package. ORP indicated that there should be a clear path forward to sign the change package before June 30, 2016, which is the dispute extension deadline.

Retrieval Program - ORP stated that a retrieval completion certification for SST C-111 is anticipated for delivery to Ecology by July 15, 2016. ORP stated that the camera inspection of SST C-111 was done, and the tank is right at 1,000 cubic feet after deploying the three retrieval technologies to their limit. Ecology inquired about the evaluation of the aluminum in SST C-105 process sample. ***ORP took an informal action to follow up with Ecology's inquiry regarding the aluminum in SST C-105 process sample.***

12.0 TANK WASTE RETRIEVAL WORK PLAN STATUS

ORP noted that the tank waste retrieval work plans (TWRWPs) for SST Farm AX has been added to the table in the monthly summary report. ORP stated that it is working through the first group of AX TWRWP comments that were received from Ecology, and the second group of AX TWRWP comments has been received.

13.0 APPENDIX H STATUS – SINGLE-SHELL TANK WASTE RETRIEVAL CRITERIA

There was no change in status.

14.0 TANK RETRIEVALS WITH INDIVIDUAL MILESTONES

There was no change in status.

CONSENT DECREE MONTHLY SUMMARY REPORT REVIEW

1.0 CONSENT DECREE MILESTONE STATISTICS/STATUS - CONSENT DECREE REPORTS/REVIEWS

The reports, agreements, issues, and actions were discussed and updated as follows:

Action No. 1 (WTP-14-10-01)

ORP stated that a meeting was held with Ecology earlier this month to discuss the approach for the replacement melter assembly, and asked if any more information is owed to Ecology. Ecology referred to the language in the action item updates that states additional information on replacement plans will also be provided", and asked if there is a discrete set of information. ORP responded that the FY17 integrated schedule identifies that a plan will be developed, and that more information may be available in another year. Ecology suggested closing this action, and that ORP continue reporting on the melter assembly on a monthly basis. Ecology added that when a plan is in place, another action item could be opened. ORP stated its expectation is to continue sharing information with Ecology regarding the melter assembly. This action was closed.

Action No. 2 (WTP-14-10-04)

ORP indicated that a briefing was provided to Ecology regarding each technical issue and the current status. Ecology responded that a briefing was provided, but it was focused more on getting caught up in general and was not sufficient enough technical detail to satisfy the group. Ecology added that the implication from the briefing was that briefings would be scheduled on a periodic basis. This action remains open.

Action No. 3 (WTP-14-10-05)

ORP indicated that a schedule for the three-year work plan was provided to Ecology. Ecology stated that critical path information was received from ORP this morning. Ecology will review the information and follow up with ORP about whether it satisfies this action. This action was put on hold until Ecology responds to ORP.

Action No. 4 (WTP-14-06-02)

There were no updates provided today. This action remains open.

Action No. 5 (WTP-14-04-01)

ORP indicated that this action will be addressed when the briefings associated with action Nos. 2 and 4 are provided to Ecology. This action remains open.

Action No. 6 (WTP-15-01-01)

There were no updates provided today. This action remains open.

Action No. 7 (WTP-15-06-01)

ORP stated that the corrosion simulant basis document has not been issued, and that simulant selection is scheduled for late July 2016. ORP noted that the time frame for providing this document keeps slipping. This action remains open.

Action No. 8 (WTP-16-02-01)

ORP and Ecology agreed that this action is focused towards testing, and ORP will revise the action item to state what design features are left in the standard high solid vessel design (SHSVD) testing. This action remains open.

Action No. 9 (WTP-16-05-01)

ORP stated that Bechtel has issued some documents associated with the design and operability (D&O) review, and they will be provided to Ecology. ORP added that some documents are being reviewed and will be available to Ecology in the near future. Ecology requested a schedule for the documents that have not been issued. ORP agreed to provide Ecology a list of the documents that have been issued and what is forthcoming. ORP will provide the document numbers for issued documents so that Ecology can access the documents on doc.search. This action remains open.

Action No. 10 (WTP-16-05-02)

ORP stated that additional welds on the melter shield lid were required and driven by the thermal analysis. ORP stated that the presentation is not ready because a review of the offgas pipe that goes through the shield lid is being done to determine whether insulating the pipe could reduce the amount of welding needed. ORP indicated that it would be ready to give a presentation on the welds in the July 2016 time frame. This action remains open.

SPARE REBOILER REQUIREMENT STATUS

ORP stated that the milestone to purchase a spare reboiler is on schedule. The function requirements evaluation document was recently completed, and efforts are under way associated with the procurement of the reboiler. Ecology inquired about the cost for the reboiler. ORP responded that the estimated cost is about $1.5 million, and installation of the reboiler will be an additional cost. Ecology asked if work packages will be prepared ahead of time for installation of the reboiler to minimize down time after the reboiler arrives on site. ORP responded that it will be a graded approach, and the framework will be in place. Ecology asked how much pre-staging will be done to minimize the down time. ORP responded that as the plans come together, they will be shared with Ecology. Ecology stated that discussions regarding the installation plans for the reboiler would be satisfactory, and an action item was not needed.

2.0 SINGLE-SHELL TANK RETRIEVAL

ORP stated that milestones D-16B-01 and D-16B-02 are on schedule. SST C-105 is the remaining tank in the group of three SSTs, C-102 and C-111, that are being worked through. ORP noted that the first two tanks that will be focused on are SSTs AX-102 and AX-104, and retrieval will start in 2018.

3.0 TANK WASTE RETRIEVAL WORK PLAN STATUS

The CD TWRWP table is identical to the TPA TWRWP table. See discussion under TPA TWRWP status.

4.0 SINGLE-SHELL TANK RETRIEVAL MONTHLY FISCAL YEAR EARNED VALUE MANAGEMENT SYSTEM DATA

ORP stated that the Earned Value Management System (EVMS) data is the same as reported in the TPA portion of today's monthly summary.

5.0 WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT

ORP stated that the current priority for the Waste Treatment and Immobilization Plant (WTP) is the DFLAW project. Efforts are being made to obtain funding for the other facilities based on what DFLAW needs. Ecology referred to the first two bullets under significant accomplishments, and asked when ORP anticipated completing its review on those documents. ORP estimated the reviews would be completed in September 2016. It was noted that while ORP is reviewing the documents, they would be located in doc.search. Ecology requested links to the first two documents listed under significant accomplishments, and also the Preliminary Documented Safety Analysis (PDSAs) for the High-Level Waste (HLW) Facility hazards analysis and the EMF. ORP agreed to provide the links to those four documents.

6.0 PRETREATMENT FACILITY

ORP stated the focus in Pretreatment (PT) Facility continues to be technical issue resolution and fabrication of the SHSVD test vessel. ORP noted that the SHSVD fabrication is moving forward. ORP stated that the contractor provided documents associated with technical issues T1 and T3. ORP has provided comments and the documents are being revised. ORP stated that an integrated technical team (ITT) from ORP and Bechtel National, Inc. (BNI) is being put together for technical issue T5 (erosion/corrosion). Ecology inquired about the status of the erosion/corrosion sliding bed report. ORP responded that the report would be part of the briefing on technical issues that will be provided to Ecology. Ecology indicated that it will be helpful to read the report once ORP provides the link to the report.

Ecology asked when the 16-foot vessel testing will start. ORP estimated that the testing would start before December 2016. Ecology indicated that the start of testing may be included in the schedule that ORP sent this morning.

7.0 HIGH-LEVEL WASTE FACILITY

ORP stated the key work in the HLW Facility is the planning for the next three to four years, with varying details, since the two-year plan ends in September 2016. The first two years will have more detailed planning (FY 2017 and FY 2018) and will be implemented in September 2016. ORP stated that the planning efforts are based on current funding, but based on all the milestones, additional funding will be needed in many of the out years. ORP has asked BNI to provide various work scope scenarios if additional funding was provided. ORP added that there are discussions with DOE-Headquarters regarding funding needed to complete various work scopes. Ecology referred to the three milestones with asterisks and the language that states

future HLW Facility milestones are dependent on increased levels of funding becoming available. Ecology asked if that meant ORP was putting Ecology on notice that the expected levels of funding are no longer adequate. ORP responded that the language is generated from a legal aspect. ORP added that its perspective is additional funding is needed than what is currently planned to complete the milestones. Ecology clarified that current funding does not present an issue, but funding for later years could be a problem. ORP responded that the funding for FY 2017 is approved, and it's the funding for FY 2018 and beyond that could be an issue.

Ecology asked if any investigation is being done about changes that may be needed regarding the vessel vent process. ORP responded that phase 1 of Bechtel's report was received and will be reviewed. ORP noted that the engineering study is divided into phase 1 and phase 2. ORP is planning to provide a briefing to Ecology on the vessel vent process in July 2016. ORP added that significant changes have not been identified as being needed. ORP noted that phase 2 will need to be completed before the overall impact can be determined and a final decision is made. ORP stated phase 2 will provide the information for permit changes. Ecology asked if ORP and Bechtel are not far along enough in the process to assess how much funding will be needed. ORP responded that the issue associated with the offgas treatment process/process vessel vent is not funding but with improving the operability.

Ecology initiated a discussion regarding the D&O review, and noted that its focus was the high level offgas process (HOP). Ecology asked if the outside consultants will be involved in a final review of ORP's decisions. ORP responded that the outside consultants have completed their review and comment. ORP noted that it has its own subject matter experts that will be consulted as technical issues arise, and the disposition of comments will be thoroughly reviewed to ensure they can withstand scrutiny from any outside source. Ecology asked if the Defense Nuclear Facilities Safety Board (DNFSB) will have any involvement. ORP responded that the DNFSB is not involved with reviewing documents, but the board is provided copies of documents as they mature.

ORP stated that Mississippi State University (MSU) is preparing to conduct qualification testing of high-efficiency particulate air (HEPA) filters in July 2016. At the same time, the existing filter that failed for the higher offgas operating conditions will be tested to determine whether it can support the lower condition parameters for the C2/C3 ventilation system. The vendor has been asked to develop some other designs for testing that would be less robust than the filter designs that will be qualified, but could be used in the lower demand ventilation system.

8.0 LOW-ACTIVITY WASTE FACILITY

ORP stated that the Low-Activity Waste (LAW) Facility is 54 percent complete overall. Ecology asked why the overall facility complete is about halfway done. ORP explained that it was reported out a few months ago when the rebaselining was done. ORP pointed out that construction is about 80 percent complete, and the construction substantially complete milestone is due in 2020. ORP added that the overall facility complete includes commissioning, and the milestone is due in 2023.

ORP reported that that the thermal catalytic oxidizer (TCO) will be installed starting on Monday (6/20/16) by setting it on the embeds. Ecology asked how long it will take to get the TCO

installed. ORP responded that with all the connections to make on the TCO, it will likely go through to construction complete.

ORP stated that planning is under way for installing the wet electrostatic precipitator (WESP) internals in the second vessel, and there is an alignment issue. The electrodes may need to be started to do the final alignment, and BNI is evaluating the optimal time to do that. ORP will schedule a meeting with Ecology once the alignment has been resolved to provide details on the WESP vessel. ORP stated that the shipping date for the caustic scrubber has slipped, and it's now expected to ship in October 2016, with installation complete in February 2017.

ORP noted that the rebaselining efforts are continuing, and contract negotiations are under way for LAW, Balance of Facilities (BOF) and Analytical Laboratory (LAB) also known as LBL. ORP added that the goal is to complete the rebaselining efforts by September 2016.

ORP stated that as discussed under Action No. 10 (WTP-16-05-02), a briefing will be provided to Ecology regarding the additional welds required on the melter shield lids.

9.0 BALANCE OF FACILITIES

ORP stated that work continues on the design for EMF and performing system isolations and finalizing the isolation design. Site grading for the EMF is under way, and preparations are being made for excavation for the EMF low point drain. Site energization efforts are still under way. ORP reported that some of the software preparation is still being done, so turnover of the communication systems in the switchgear buildings and the nonradioactive liquid waste disposal (NLD) have been pushed back.

ORP stated that the 90 percent design review of the BOF programmable protection system has been postponed to align with the ammonia review, which will occur sometime in 2017. The 60 percent design review of the EMF will take place this fall.

Ecology asked if purchase of the rotary screw compressor is associated with starting the LAW Facility separately. ORP responded that it is due to the reduced demand, and the rotary screw compressor will provide a smaller capacity than the centrifugal compressors in the chiller compressor plant, and space had been left in the facility for additional compressors.

10.0 ANALYTICAL LABORATORY

ORP reported that the focus continues to be with the test engineer's work station, and some of the system turnovers associated with the work station have been done. ORP stated that a new condenser for the C1V system is being procured, which provides the air conditioning for the work station. ORP stated that the final designs are being done for the DFLAW modifications needed for LAB. ORP noted that the modifications are very minimal and are all associated with the radioactive liquid waste disposal (RLD) system and being able to transfer that liquid waste over to the EMF.

ATTENDEES:

DOE Office of River Protection:
W. Abdul
R.E. Beach
S. J. Beehler
J.M. Bruggeman
K. W. Burnett
J.J. Carter
J.J. Daniels
J.A. Diediker
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D.M. MacDonald
A. C. McCartney
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Washington State Department of Ecology:
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N. Chandron
T. Gao
M.E. Jones
S. Lowe
J. D. McDonald
A. Pomiak
J. Richardson
E.A. Rochette
E.R. Skinnarland
M. Skorska
M. Walmsley

Mission Support Alliance/TPA:
S.M. Braswell
J.T. Hamilton (WRPS)
C. Keith (PT&C)
K. Knox (Court Reporter)
R. E. Piippo
M. J. Turner

June 15, 2016
ORP TPA CD Monthly Meeting

PRINT NAME	SIGN NAME	ORG
Abdul, Wahed	attended	ORP
Alzheimer, Jim		ECY
Barnes, Mike		ECY
Beach, Ryan		ORP
Beehler, Steve		ORP
Biyani, Rabindra		ECY
Braswell, Sharon		MSA
Bruggeman, Jeff		ORP
Burnett, Kaylin W		ORP
Carter, Justin		ORP/WED
Chandran, Nitya		ECY
Cimon, Shelly		OR State
Curn, Barry		BNI
Diediker, Janet		ORP
Evans, Rana		ORP
Faulk , Dennis		EPA
Fletcher, Thomas		ORP
Gao, Tracy		ECY
Grindstaff, Joanne		ORP/WTP
Hamilton, James		WRPS
Hernandez, Paul		ORP
Higgins, Kathleen		ORP
Huffman, Lori		ORP
Joyner, Jessica		WRPS

June 15, 2016
ORP TPA CD Monthly Meeting

PRINT NAME	SIGN NAME	ORG
Kemp, Christopher		ORP
Knight, Dan		ORP
Knox, Kathy ✓	Kathy Knox	Court Reporter
Lobos, Rod		EPA
Lowe, Steven		ECY
Lynch, James		ORP
Lyon, Jeffery		ECY
MacDonald, Dawn		ORP
Martell, John		DOH
Mathey, Jared		ECY
McCarthy, Anne		ORP
McDonald, Dan		ECY
McNeel, Kliss R		WRPS
Menard, Nina		ECY
Nichols, Stacy		ECY
Parker, Dan		WRPS
Pfaff, Stephen H		ORP
Piippo, Robert E		MSA
Price, John		ECY
Rambo, Jeffrey		ORP
Richardson, John		ECY
Sands, Jennifer		ORP
Schleif, Stephanie		ECY
Schmidt, John		DOH

June 15, 2016
ORP TPA CD Monthly Meeting

PRINT NAME	SIGN NAME	ORG
Shuen, Jian-Shun		ORP
Skorska, Maria		ECY
Smith, Alex		ECY
Stafford, Harold		ORP
Stewart, Dustin		ORP
Trenchard, Glyn		ORP
Trimberger, Bryan		ORP
Turner, Michael		MSA
Utley, Randell		DOH
Valle, Richard		ORP
Varljen, robin		ECY
Walmsley, Mign		ECY
Wang, Oliver S		ECY
Whalen, Cheryl		ECY
Wold, Kristi		ECY
Wrzesinski, Wendell		ORP
Young, Jason		ORP
Ron Skinnarland		ECY
Colleen Keith		PTOC /ORP
ANDREW POMUK		ECY
Beth Pockette		Ecology
Mandy James		Ecology
Jeff Daniels		ORP

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –June 2016

Agreements:

1. Per an Ecology standing request (4/21/2016), ORP agrees to include any written directives given by DOE to the contractors for work required by the CD in future quarterly CD Reports (see CD Section IV-C-1-e).
2. The ORP and Ecology PMs have developed, signed, and entered an outline for the CD Tank Completion Certification into the TPA Administrative Record. Senior management will continue to be briefed if any follow-on actions arise.

Issues:

1. Ecology has a concern with WTP data being reported exclusively in the CD Monthly Summary Report as the current CD reporting process does not allow Ecology early review time of the CD Monthly Summary Report. ORP and Ecology have raised this concern for discussion at the senior management levels.
2. Ecology disagrees with ORP's letter 15-WSC-0027 and the System Plan.

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –June 2016

Tank Farms Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
1	TF-15-10-02	10/15/15	Ecology requests ORP provide information regarding plans and concepts for LERF/ETF to be ready to accommodate Direct Feed Low Activity Waste (DFLAW).	Open		Wendell Wrzesinski	
2	TF-15-10-03	10-15-15	Ecology requests ORP provide information regarding the LERF basin covers, including the target and plan to reduce inventory in the basins.	Closed		Richard Valle	5-19-16
3	TF-16-01-01	1-21-16	Ecology requests DOE provide current LAWPS technical design media to Ecology	Open		Steve Pfaff/ Janet Diediker	
4	TF-16-01-02	1-21-16	Ecology would like DFLAW program interface information to include mass & energy balance and process flow information.	Open		Wendell Wrzesinski	
5	TF-16-01-03	1-21-16	Ecology would like more information on the contamination issue for AX-104 Riser 9D	Open		Ryan Beach	
6	TF-16-05-01	5-19-16	Ecology requests ORP provide the basis for ventilation work on 241-T-112 as an intrusion tank	Open		Dusty Stewart	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –June 2016

WTP Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
1	WTP-14-10-01	10/23/14	Ecology requests information on DOE's plans and timeline for the Low Activity Waste (LAW) (replacement) melter assembly building.	Open	An engineering study conducted in 2008 will be provided to Ecology. Additional information on replacements plans will also be provided to Ecology.	Wendell Wrzesinski	
2	WTP-14-10-04	10/23/14	Ecology requests a status update to include a schedule on the 8 technical team issues for High Level Waste (HLW) and Pretreatment (PT).	Open	Completed for HLW.	Dan Knight	
3	WTP-14-10-05	10/23/14	Ecology requests on update on the details of the 3-year work plan for HLW and PT.	Open	Completed for HLW.	Dan Knight	
4	WTP-14-06-02	06/19/14	Ecology requests that DOE provide a presentation on how DOE incorporates, vets, and considers all technical issues (including the Safety Design Strategy).	Open		Joni Grindstaff	
5	WTP-14-04-01	04/22/14	ORP and Ecology have a placeholder action to hold a comprehensive briefing/discussion on the PT efforts.	Open	ORP will follow-up with Ecology to further define and clarify this action so that it can be address and closed.	Joni Grindstaff	
6	WTP-15-01-01	1/22/15	Ecology requests a presentation on standardized high-solids vessel design (SHSVD) to include impacts and optimization in planning area 2, 3, and 4	Open	Impacts will be better understood once the design studies are issued.	Dan Knight	
7	WTP-15-06-01	06/15/15	ORP took an action to provide Ecology a copy of the corrosion simulant basis document.	Open		Dan Knight	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items –June 2016

WTP Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
8	WTP-16-02-01	2/18/16	Ecology would like to know what design features are left for SHSVD	Open		Dan Knight	
9	WTP-16-05-01	5/19/16	Ecology requests ORP provide engineering studies that support closure of the HLW Design and Operability review.	Open		Wahed Abdul	
10	WTP-16-05-02	5/19/16	Ecology requests a presentation regarding the additional welds on the melter lids and lessons learned from the first melter lid	Open		Jeff Bruggeman	

Final

Office of River Protection

Tri-Party Agreement
Monthly Report
June 2016

Office of River Protection (ORP)
Tri-Party Agreement (TPA) Milestone Review
Project Earned Value Management System reflects April 2016 information

Page	Topic	Leads
2	Administrative Items/Milestone Status	Bryan Trimberger/Dan McDonald/Jeff Lyon
4	System Plan	Kaylin Burnett/Jeff Lyon/Dan McDonald
6	Acquisition of New Facilities	Janet Diediker/Jeff Lyon/Dan McDonald
6	Supplemental Treatment and Part B Permit Applications	Steve Pfaff/Jeff Lyon/Dan McDonald
8	242-A Evaporator Status	Paul Hernandez/Jeff Lyon
9	Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility	Richard Valle/ Stephanie Schleif
10	Tank System Update	Dusty Stewart /Jeff Lyon
10	Single-Shell Tank Integrity Assurance	Dusty Stewart / Jim Alzheimer
11	In Tank Characterization and Summary	Dusty Stewart/Michael Barnes
14	Tank Operations Contract Overview	ORP TPA Program Managers/Jeff Lyon
24	Single-Shell Tank Closure Program	Ryan Beach/Jeff Lyon
27	Single-Shell Tank Retrieval Program	Chris Kemp/Jeff Lyon
30	Tank Waste Retrieval Work Plan Status	Chris Kemp/Jeff Lyon
31	Tank in Appendix H, "Status - Single Shell Waste Retrieval Criteria"	Chris Kemp/Jeff Lyon
31	Tank Retrievals with Individual Milestones	Chris Kemp/Jeff Lyon
CD	Waste Treatment and Immobilization Plant (WTP) Overall TPA Summary and Milestone Status; see the U.S. Department of Energy, Office of River Protection Consent Decree 08-5085-FVS Monthly Report for WTP Facility-specific information	Joni Grindstaff/Dan McDonald

Administrative Items/Milestone Status

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2015				
M-062-45-T01	Comp. Neg's 6-Mo After Last Issuance of System Plan	04/30/2015		In Dispute
M-062-45-ZZ	Negotiate a One Time Supplemental Treatment Selection	04/30/2015		In Dispute
M-062-45-ZZ-A	Convert M-062-31-T01 Thru M-062-34-T01 to Interim Milestones	04/30/2015		In Dispute
M-045-92	Barrier 3 Design/Monitoring Approval From Ecology	06/30/2015		In Dispute
M-045-82	Submit Comp. Permit Modification Request for Tiers 1,2,3	09/30/2015		In Dispute
M-045-91E1	Provide SST Farms Dome Deflection Surveys Every Two Years.	09/30/2015	9/21/15	Complete
Fiscal Year 2016				
M-045-92N	Construct Barriers 1 and 2 in 241-SX Farm	10/31/2015		In Dispute
M-062-01AF	Submit Semi-Annual Project Compliance Report	01/31/2016	01/29/2016	Complete
M-047-07	CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology	03/31/2016		In Dispute
M-090-13	CD-1 for Interim Hanford Storage Project and CR for CD-2 to Ecology	03/31/2016		In Dispute
M-062-31-T01	Comp. Final Design & Submit RCRA Part B Permit Mod Request for Enhanced WTP & Supplemental Treatment	04/30/2016		In Dispute
M-045-92Q	Submit Barrier 4 Design/Monitoring Plan	06/30/2016		In Dispute
M-062-01AG	Submit Semi-Annual Project Compliance Report	07/31/2016		On Schedule
M-045-56L	Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)	07/31/2016		On Schedule
Fiscal Year 2017				
M-045-92P	Barrier 3 Construction Complete	10/31/2016		In Dispute
M-062-40E	Select a Minimum of Three Scenario's	10/31/2016		On Schedule
M-045-61A	Submit to Ecology a primary doc. Phase 2 CMS and Rev. O update to the RFI Report for WMA-C	12/31/2016		On Schedule
M-045-62	Phase 2 Corrective Measures Implementation Work Plan For WMA-C	Six months after CMS approval (M-045-61A)		On Schedule
M-045-84	Comp Neg's of HFFACO Interim Milestones for Closure of 2nd SST WMA	01/31/2017		At Risk

Milestone	Title	Due Date	Completion Date	Status
M-062-01AH	Submit Semi-Annual Project Compliance Report	01/31/2017		On Schedule
M-062-01AI	Submit Semi-Annual Project Compliance Report	07/31/2017		On Schedule
M-045-91E2	Provide SST Farms Dome Deflection Surveys' Every Two Years	09/30/2017		On Schedule

CD-1/-2 = critical decision-1/-2.
CMD = current measuring device.
CMS = current measures study.
CR = change request.
DOE = U.S. Department of Energy.
Ecology = Washington State Department of Ecology.
HFFACO = *Hanford Federal Facility Agreement and Consent Order.*
RCRA = *Resource Conservation and Recovery Act.*
RFI = RCRA Facility Investigation.
SST = single-shell tank.
TBD = to be determined.
WTP = Waste Treatment and Immobilization Plant.
WMA = Waste Management Area.

System Plan

Significant Past Accomplishments:

1. On October 24, 2013, Washington State Department of Ecology (Ecology) and U.S. Department of Energy (DOE), Office of River Protection (ORP) signed the Tri-Party Agreement (TPA) Change Control Form M-62-13-02, moving out the due date for this embedded milestone from October 31, 2013 to December 15, 2013, for selection of three, or more, scenarios to be modeled in the ORP-11242, *River Protection Project System Plan*, Rev. 7 (System Plan 7).
2. Ecology defined five scenarios to be analyzed in System Plan 7. Washington River Protection Solutions LLC (WRPS) included a description of each scenario in the *Selected Scenarios for the River Protection Project System Plan*, Rev. 7 document released to ORP on December 4, 2013. See joint ORP and Ecology letter 13-TPD-0070, "Completion of Hanford Federal Facility Agreement and Consent Order Milestone M-062-40C, to select a Minimum of Three Scenarios and Partial Completion of Milestone M-062-40," dated December 12, 2013, for completion and description of M-062-40C scenarios.
3. Detailed assumption review was completed and has been approved by Ecology.
4. On February 11, 2014, ORP transmitted a letter (14-TPD-0003, "Contract No. DE-AC27-08RV14800 – Approval to use Washington State Department of Ecology's Appendix B, "Key Assumptions and Success Criteria" for the ORP-11242, *River Protection Project System Plan*, Rev. 7") to WRPS in response to letter WRPS-1400313, "One System – Washington River Protection Solutions LLC Transmits to the U.S. Department of Energy, Office of River Protection for Approval, Appendix B Key Assumptions and Success Criteria for the River Protection Project System Plan, Revision 7, in Support of Contract Deliverable C.2.3.1 -1, River Protection Project System Plan," to approve the use of Ecology's Appendix B, "Key Assumptions and Success Criteria," for System Plan 7.
5. On February 13, 2014 Ecology presented the five selected scenarios to the Hanford Advisory Board Tank Waste Committee.
6. Ecology, ORP, and WRPS reviewed and provided comments for Sections 1.0 and 2.0 of System Plan 7 during the week of February 17, 2014.
7. Ecology, ORP and WRPS reviewed and provided comments for Section 3.0 of the System Plan 7 during the week of March 21, 2014.
8. Ecology, ORP and WRPS reviewed and provided comments for Appendix C, "Modeling Tools," of the System Plan 7 during the week of April 1, 2014.
9. During the week of April 28, 2014, WRPS and ORP facilitated meetings for Ecology to define detail spending assumptions for Case 5.
10. On July 29, 2014, WRPS case authors presented the results of the five cases to Ecology and ORP.
11. System Plan 7 was reviewed, all comments resolved, and comments incorporated into the document.

12. On October 31, 2014, ORP transmitted System Plan 7 to Ecology.
13. ORP received Ecology's January 14, 2015, transmitted letter 15-NWP-004, "Department of Ecology Review of the *River Protection Project System Plan*, ORP-11242, Revision 7," regarding Ecology's review of System Plan 7.
14. ORP met with Ecology at the Tank Farms TPA and Consent Decree (CD) monthly status meeting on February 25, 2015.
15. ORP transmitted letter 15-WSC-0027, "Washington State Department of Ecology Review of ORP-11242, *River Protection System Plan, Rev. 7*, 15-NWP-004, January 14, 2015," in response to Ecology's letter 15-NWP-004 to Ecology on June 2, 2015. ORP's letter provided clarification and several attachments of additional information requested in Ecology's January 14, 2015, letter.
16. Scenario selection discussions to support M-062-40E started between ORP and Ecology on April 25, 2016.

Significant Planned Actions in the Next Six Months:

- Scenario selection discussions will be conducted to support M-062-40E, Due: October 31, 2016

Issues: None.

Acquisition of New Facilities

M-090-13, Submit Critical Decision-1 for Interim Hanford Storage Project and TPA Change Request for CD-2 to Ecology, Due: March 31, 2016, Status: In dispute. Change control form M-90-15-01 was submitted by ORP to Ecology for approval on December 30, 2015. This dispute has been extended to June 30, 2016.

M-090-00, Acquire/Modify Facilities for Storage of Immobilized High-Level Waste (IHLW), Due: December 31, 2019, Status: On schedule.

M-047-07, Submit CD-1 for Secondary Liquid Waste Treatment and Change Request (CR) for CD-2 to Ecology, Due: March 31, 2016, Status: In dispute. Change control form M-47-15-01 was submitted by ORP to Ecology for approval on December 30, 2015. This dispute has been extended to June 30, 2016.

M-047-00, Complete Work Necessary to Provide Facilities for Management of Secondary Waste from the Waste Treatment and Immobilization Plant (WTP), Due: December 31, 2022, Status: On schedule.

Significant Past Accomplishments: None.

Significant Planned Actions in the Next Six Months: None.

Issues: None.

Supplemental Treatment and Part B Permit Applications

M-062-45-ZZ (designation for M-062-45 item 3), Negotiate a one-time supplemental treatment selection, Due: April 30, 2015, Status: In dispute.

M-062-45-ZZ-A, Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones, Due: April 30, 2015, Status: In dispute.

M-062-31-T01, Complete final design and submit Resource Conservation and Recovery Act Part B permit modification request, Due: April 30, 2016, Status: In dispute.

M-062-32-T01, Start construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: April 30, 2018, Status: In dispute.

M-062-33-T01, Complete construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: April 30, 2021, Status: In dispute.

M-062-45-T01, Every six years, within six months after last revision of the System Plan, negotiate tank waste retrieval sequencing, Due: April 30, 2015, Status: In dispute.

M-062-45-XX, No later than December 31, 2021, the DOE and Ecology shall complete negotiations to establish a mechanism that will apply to resolve future disputes regarding the determinations in M-062-45, paragraphs 4 and 5, Due: December 31, 2021, Status: On schedule.

M-062-34-T01, Complete hot commissioning of supplemental vitrification treatment facility and/or WTP enhancements, Due: December 30, 2022, Status: In dispute.

M-062-21, Annually submit data that demonstrates operation of the WTP, Due: February 28, 2023, Status: On schedule.

M-062-00, Complete Pretreatment Processing and Vitrification of High-Level Waste and LAW Tank Wastes, Due: December 31, 2047, Status: On schedule.

Significant Past Accomplishments:

*Per ORP letter 14-TF-0052, "Documentation of U.S. Department of Energy, Office of River Protection and Washington State Department of Ecology Agreement that the Office of River Protection will not Submit A One-Time Hanford Tank Waste Supplemental Treatment Technologies Report," signed by ORP on May 6, 2014, and provided to Ecology on May 7, 2014, ORP documented the ORP/Ecology discussions for the one-time *Hanford Tank Waste Supplemental Treatment Technologies Report* and that ORP does not intend to submit this report. ORP received Ecology's response letter, 14-NWP-110, "Acknowledgement that the U.S. Department of Energy, Office of River Protection Will Not Submit a One-Time Supplemental Treatment Technologies Report," on May 29, 2014. ORP letter 14-TF-0088, "Hanford Federal Facilities Agreement and Consent Order Class II Change Request for Deletion of Tri-Party Agreement Milestone M-062-40ZZ, One-Time Hanford Tank Waste Supplemental Treatment Technologies Report," dated and delivered to Ecology on July 31, 2014, submitted a signed TPA change package to delete the requirement of the *One-Time Hanford Tank Waste Supplemental Treatment Technologies Report* from TPA Milestone M-062-40. Ecology signed TPA Change Package M-62-14-01 deleting M-062-40ZZ on August 12, 2014.

Significant Planned Actions in the Next Six Months: None.

Issues:

On January 30, 2015, ORP provided Ecology Change Control Form M-62-14-02, which proposed adding language under TPA Milestone M-062-45 to defer negotiations required under M-062-45. Ecology did not respond with the 14-day review period that ended February 13, 2015 which is deemed disapproval in accordance with the TPA. In letter 15-TF-0014, "Initiation of Dispute Resolution Regarding Disapproval of Hanford Federal Facility Agreement and Consent Order Change Control Form M-62-14-02,"dated February 20, 2015, ORP initiated a dispute resolution. Ecology provided a justification for their disapproval on March 12, 2015 via letter 15-NWP-036, "Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Change Package, Change Number M-62-14-02, dated 01/30/2015." Ecology and ORP signed an extension of the dispute resolution period at the TPA project manager level until June 30, 2016.

242-A Evaporator Status

(previously reported under Milestone M-48, which has been closed out)

The 242-A Evaporator campaign strategy for fiscal year (FY) 2015 through fourth quarter of FY 2016 depicted in the following table:

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY 2015	EC-01	AP-103 AP-104	AP-107	Completed June 21, 2015. WVR = 381 kgal
FY 2015	EC-02	AZ-102	AP-103	Completed July 21, 2015. WVR = 384 kgal
FY 2015	EC-03	AZ-102	AP-103	Completed September 25, 2015. WVR = 375 kgal
FY 2016	EC-04	AP-104	AP-103	Completed April 15, 2016. WVR = 258 kgal
FY 2016	EC-05	AP-104	AP-104	Completed April 21, 2016. WVR = 46 kgal
FY 2016	EC-06	AY-101	AP-104	Estimated to begin fourth quarter FY 2016.

FY = fiscal year
kgal = thousand gallons
WVR = waste volume reduction

Significant Planned Actions in the Next Six Months:

- Future campaign and outage scheduling
- Electrical preventative maintenance activities in 241-AW and 242-A
- Control room upgrades at 242-A Evaporator
- Replacement of the P-B-2 pump variable frequency drive

Issues: None.

Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

Status:

The Liquid Effluent Retention Facility (LERF) liquid levels, inventory, and received waste is shown in the table below.

Note: Volumes in this table are estimated. Tanker shipment volumes are estimated by multiplying the number of shipments by the capacity of the tanker being used.

	242AL-42 (Basin 42)	242AL-43 (Basin 43)	242AL-44 (Basin 44)
Volume (as of 05/27/16)	~5.35 Mgal	~6.55 Mgal	~6.87 Mgal
AZ-301 Tanker Shipments	-	-	-
MWBT-31 and 34 Leachate	-	-	~42,000 gal
Perched Water Tanker Shipments	-	-	-
ERDF Leachate Transfers	-	-	-
ERDF Leachate Tanker Shipments	-	-	-
Other (325 Building Totes)	-	-	-
242-A Campaigns (EC-04 & 05)	-	-	-

ERDF = Environmental Restoration Disposal Facility.
Gal = gallon.
Mgal = million gallons.
MWBT = mixed waste burial trench.

Significant Past Accomplishments:

- Total FY 2016 volume processed (as of 05/31/16): 560,000 gallons
- Restart of waste processing at ETF began May 19.
- Repair of special protective coating (SPC) for those areas requiring secondary containment is complete (i.e., verification berm, LERF catch basins, and load-in station).
- Hanford Dangerous Waste Permit 8C, Operation Unit Group -3, class 1 prime modifications package submitted to Ecology on June 6, 2016.

Significant Planned Actions in the Next Six Months:

- Continued waste processing of Basin 43 will continue to achieve an initial 2M gal reduction.
- A maintenance outage will follow before an additional 2M gal reduction is anticipated by end of FY 2016.
- Repair of the concentrated chemical storage tank berm is to be completed in fourth quarter of FY 2016.

Issues: None.

Tank System Update

Significant Planned Actions in FY 2016:

~~Strikethrough~~ means completed to date

Double Shell Tank (DST) Integrity

- Enhanced annulus video inspection:
  - ~~241-AN-101~~ (complete)
  - ~~241-AN-103~~(complete)
  - ~~241-AN-104~~(complete)
  - ~~241-AN-105~~(complete)
  - ~~241-AN-106~~(complete)
  - ~~241-AW-103~~ (complete)
  - ~~241-AW-106~~ (complete)
  - ~~241-SY-101(complete)~~
  - 241-SY-102
  - ~~241-SY-103(complete)~~

  (Videos are completed and being evaluated by engineering with report preparation in progress)

- Ultrasonic testing (UT) inspections (two risers for primary wall/welds, one riser for secondary floor):
  - 241-AN-105 (field work complete, in close-out and report preparation)
  - 241-AW-103 (scanning underway)

- Continuing bi-weekly inspections of AY-102 waste accumulation site
- Continuing bi-monthly comprehensive inspection of AY-102 annulus
- Issued RPP-7574, *Double-Shell Tank Integrity Project Plan*
- Released the DST independent qualified registered professional engineer (IQRPE) integrity assessment report (RPP-RPT-58441) per WAC 173-303-640(2), "Tank systems".

Single Shell Tanks (SST) Integrity

- In-tank video inspections:
  - ~~241-T-107~~ (complete)
  - ~~241-T-110~~ (complete)
  - 241-TX-103
  - 241-TX-111
  - 241-TX-113
  - 241-TX-116
  - ~~241-B-101~~ (complete)
  - ~~241-B-201~~ (complete)
  - 241-BY-105
  - 241-U-102
  - 241-U-105
  - 241-U-107. (no free riser, replaced with 241-S-105)

- Intrusions mitigation (M-045-56):
  - Complete 241-T-111. Evaporation of 241-T-111 continues, a report will be issued when evaporation is considered complete.
  - Work is initiated on subsequent tank 241-T-112

Single-Shell Tank Integrity Assurance

M-045-91I, Provide to Ecology an Independent, Qualified, Registered Professional Engineer (IQRPE) certification of single-shell tanks (SST) structural integrity for the remainder of the mission, or for such time as the IQRPE believes he/she can reasonably certify, Due: September 30, 2018, Status: On schedule.

Significant Past Accomplishments: None

Significant Planned Actions in the Next Six Months:

- Continue planning for the SST integrity assessment by an IQRPE (M-045-91I).

Issues: None.

In Tank Characterization and Summary

For the period from May 1 through May 31, 2016:

Accomplishments:

- Completed RPP-RPT-59284, *Derivation of Best-Basis Inventory for Tank 241-T-107 as of April 1, 2016*, Rev 0.
- Completed RPP-RPT-59283, *Derivation of Best-Basis Inventory for Tank 241-A-106 as of April 1, 2016*, Rev 0.
- Completed RPP-RPT-57338, *Derivation of Best-Basis Inventory for Tank 241-U-111 as of April 1, 2016*, Rev 1.
- Completed RPP-RPT-44814, *Derivation of Best-Basis Inventory for Tank 241-AN-101 as of April 1, 2016*, Rev 21.
- Completed RPP-RPT-48459, *Derivation of Best-Basis Inventory for Tank 241-C-111 as of April 1, 2016*, Rev 2.
- Completed RPP-RPT-58937, *Derivation of Best-Basis Inventory for Tank 241-S-108 as of May 1, 2016*, Rev 0.

- Completed RPP-RPT-48103, *Derivation of Best-Basis Inventory for Tank 241-AP-107 as of April 1, 2016*, Rev 8.
- Completed RPP-RPT-59386, *Derivation of Best-Basis Inventory for Tank 241-T-106 as of May 1, 2016*, Rev 0.
- Completed RPP-CALC-60596, *Tank 241-AP-107 FY16 Q3 Process Knowledge Concentration Vector Calculations*, Rev 3.
- Completed RPP-RPT-59307, *Tank Core Profile Report for 241-SY Tank Farm*, Rev 0.
- Completed RPP-SPEC-33590, *Data Quality Objectives for the Evaluation of Stack Chemical Emissions*, Rev 3.
- Completed RPP-PLAN-60379, *Tank 241-AY-101 Grab Sampling and Analysis Plan In Support of 242-A Evaporator Campaign EC-03*, Rev 1.
- Completed RPP-PLAN-60011, *Tank Sampling and Analysis Plan for Tank 241-C-105 Solids*, Rev 4.
- Completed RPP-PLAN-56969, *Sampling and Analysis Plan for Residual Waste Solids in Tank 241-C-112*, Rev 1.
- Completed HNF-EP-0182, *Waste Tank Summary Report for Month Ending March 31, 2016*, Rev 339.
- Completed 241-C-111 closure grab sampling May 25, 2016. One sample was received at the laboratory.

Planned Action within the Next Six Months:

Tank sampling:

- Tank 241-AP-107 core sampling is planned to begin June 2016.
- Tank 241-AP-107 grab sampling is planned to begin June 2016
- Tank 241-C-111 closure grab sampling is planned for May 2016.
- Tank 241-AY-102 Annulus grab sampling is planned for August 2016.

Best-Basis Inventory (BBI) updates:

BBI updates for the following tanks were completed in May 2016:

- 241-A-106
- 241-AN-101
- 241-AP-107
- 241-C-111
- 241-S-108
- 241-T-106
- 241-T-107
- 241-U-111

BBI updates for the following tanks currently are planned to be completed in June 2016:

- 241-AP-102
- 241-AP-104
- 241-AP-105
- 241-AW-105
- 241-AY-102
- 241-AZ-102
- 241-C-105

Data Quality Objectives (DQO):

- RPP-8532, *Double-Shell Tanks Chemistry Control Data Quality Objectives,* Rev 15, is in-process to identify additional analyses for corrosion mitigation and to simplify quality control parameters is planned to be released in June 2016.

Issues: None

Tank Operations Contract Overview

Project Performance

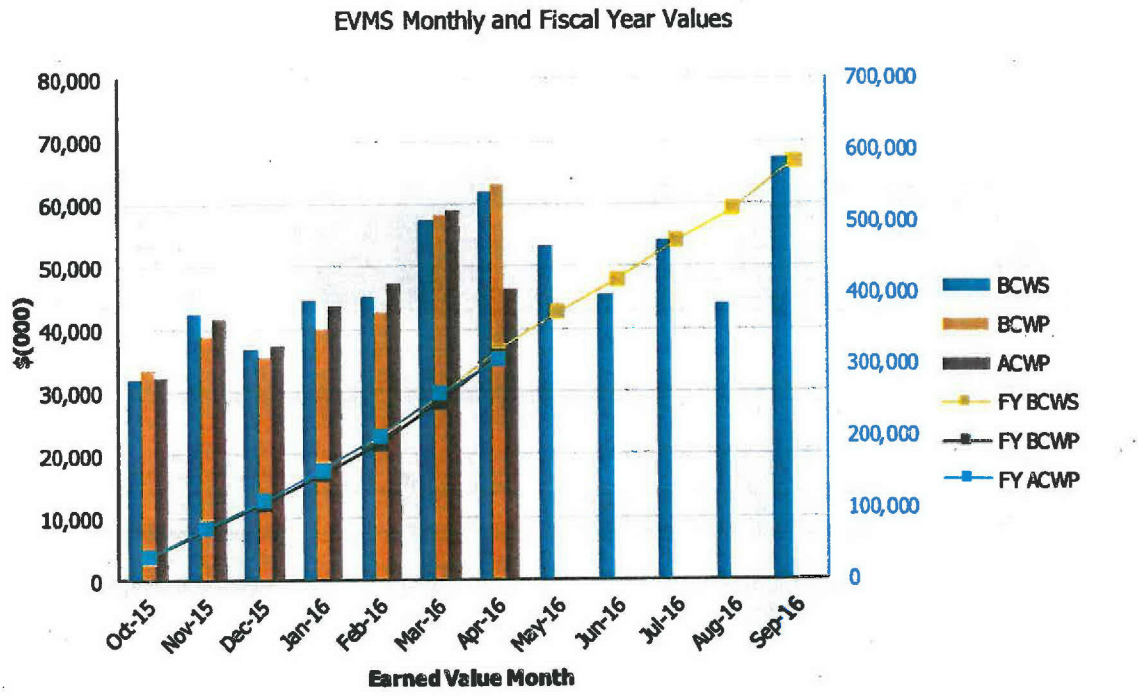
The earned value performance reporting reflects the format, work breakdown structure reporting levels, and variance thresholds as agreed to with the Tank Operations Contractor (TOC) for monthly performance reporting. The earned value analysis is not intended to be a measurement of performance against existing TPA milestones.

April-16										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	62,027	63,159	46,446	1,131	16,712	1.02	1.36			
FYTD	320,246	312,529	307,534	(7,717)	4,995	0.98	1.02	584,378		
CTD	3,109,354	3,080,623	3,085,766	(28,731)	(5,142)	0.99	1.00	4,678,619	4,685,757	(7,138)

ACWP	=	actual cost of work performed.	CV	=	cost variance.
BAC	=	budget at completion.	EAC	=	estimate at completion.
BCWP	=	budgeted cost of work performed.	FYTD	=	fiscal year to date
BCWS	=	budgeted cost of work scheduled.	SPI	=	schedule performance index.
CM	=	current month	SV	=	schedule variance.
CPI	=	cost performance index.	VAC	=	variance at completion.
CTD	=	contract to date			

Earned Value Data: Fiscal Year 2016 April-16

Tank Farms ORP-0014



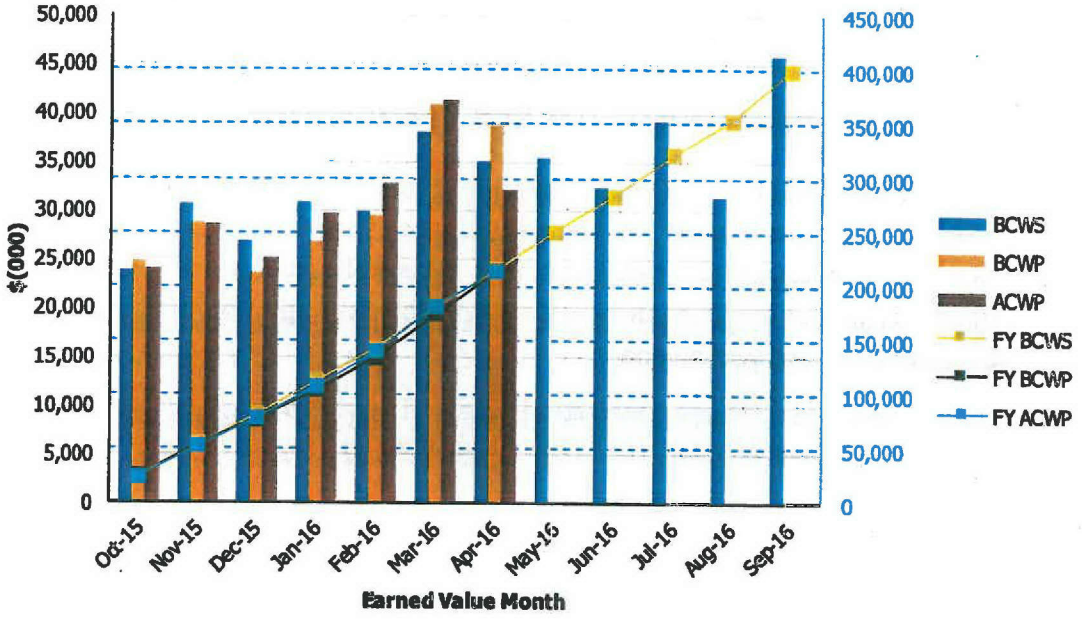
Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$31,981	$33,377	$32,188	1.04	1.04	$31,981	$33,377	$32,188	1.04	1.04
Nov 2015	$42,365	$38,998	$41,461	0.92	0.94	$74,345	$72,376	$73,649	0.97	0.98
Dec 2015	$36,744	$35,614	$37,416	0.97	0.95	$111,089	$107,990	$111,065	0.97	0.97
Jan 2016	$44,587	$40,183	$43,604	0.90	0.92	$155,677	$148,173	$154,669	0.95	0.96
Feb 2016	$45,043	$42,790	$47,389	0.95	0.90	$200,720	$190,963	$202,058	0.95	0.95
Mar 2016	$57,499	$58,407	$59,030	1.02	0.99	$258,219	$249,370	$261,088	0.97	0.96
Apr 2016	$62,027	$63,159	$46,446	1.02	1.36	$320,246	$312,529	$307,534	0.98	1.02
May 2016	$53,351					$373,597				
Jun 2016	$45,493					$419,090				
Jul 2016	$54,216					$473,306				
Aug 2016	$43,876					$517,181				
Sep 2016	$67,197					$584,378				
CTD	$3,109,354	$3,080,623	$3,085,766	0.99	1.00					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CTD = contract to date
EVMS = Earned Value Management System.
FY = fiscal year.
SPI = schedule performance index

Earned Value Data: Fiscal Year 2016 April-16

Tank Farms ORP-0014
Base Operations 5.01

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$23,768	$24,839	$24,025	1.05	1.03	$23,768	$24,839	$24,025	1.05	1.03
Nov 2015	$30,658	$28,752	$28,562	0.94	1.01	$54,426	$53,592	$52,587	0.98	1.02
Dec 2015	$26,911	$23,637	$25,173	0.88	0.94	$81,336	$77,229	$77,760	0.95	0.99
Jan 2016	$30,829	$26,913	$29,740	0.87	0.90	$112,165	$104,142	$107,500	0.93	0.97
Feb 2016	$29,963	$29,524	$32,689	0.99	0.90	$142,128	$133,666	$140,189	0.94	0.95
Mar 2016	$38,167	$40,891	$41,434	1.07	0.99	$180,295	$174,557	$181,623	0.97	0.96
Apr 2016	$34,996	$38,877	$32,157	1.11	1.21	$215,291	$213,434	$213,780	0.99	1.00
May 2016	$35,487					$250,778				
Jun 2016	$32,360					$283,138				
Jul 2016	$39,226					$322,364				
Aug 2016	$31,495					$353,859				
Sep 2016	$45,884					$399,743				
CTD	$2,107,175	$2,095,647	$2,087,608	0.99	1.00					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
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SPI = schedule performance index

Base Operations and Tank Farm Projects (5.01)

The current month favorable Schedule Variance (SV) of $3,881K is due to:

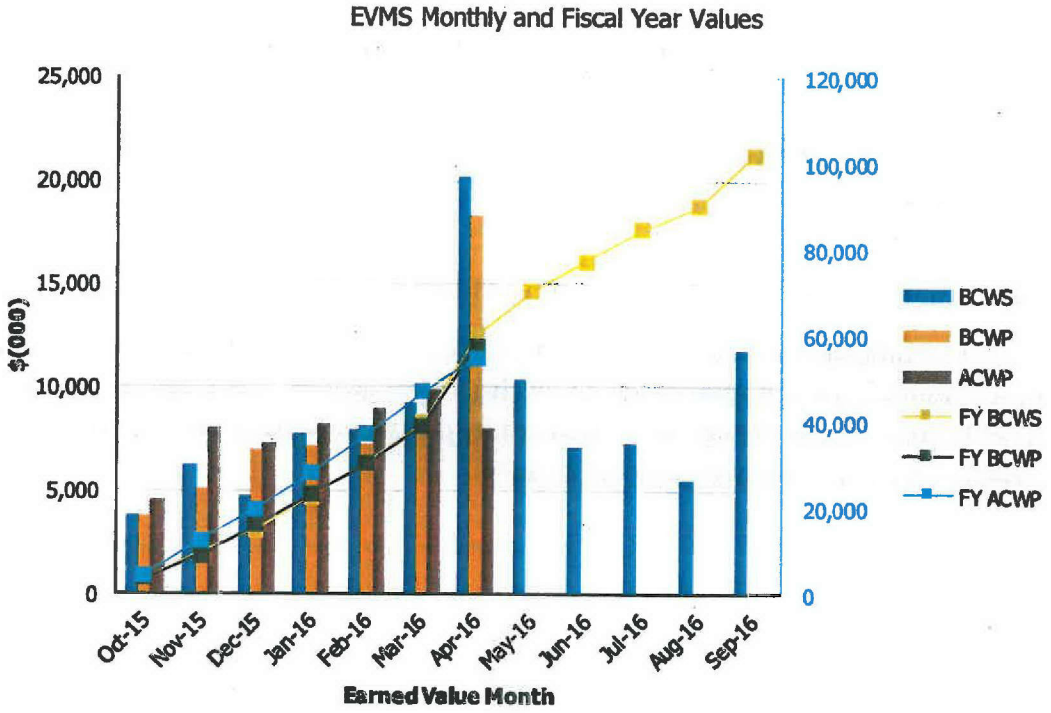
- AP Farm Ventilation Upgrades (Exhausters) - Schedule Recovery of previously planned work. Received and installed De-Entrainers as well as associated ductwork, drain piping and electrical connections.

The current month favorable Cost Variance (CV) of $6,720k is due to:

- Contract Modification 373 (Vapor Impact for Fiscal Year (FY) 2015) was implemented during April which resulted in a point adjustment of $6,973k to fiscal year 2015 work scope. This adjustment provided cost relief to control accounts that were affected/impacted by the implementation of additional respiratory requirements associated with tank farm vapors.
- AY-102 Maintenance during Standard Sluicers - Less labor/resources has been required to perform maintenance on the AY-102 standard sluicing retrieval system.

Earned Value Data: Fiscal Year 2016 April-16

Tank Farms ORP-0014
Retrieve and Close SST's 5.02



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$3,770	$3,814	$4,560	1.01	0.84	$3,770	$3,814	$4,560	1.01	0.84
Nov 2015	$6,282	$5,131	$8,006	0.82	0.64	$10,052	$8,946	$12,566	0.89	0.71
Dec 2015	$4,769	$6,970	$7,255	1.46	0.96	$14,821	$15,915	$19,821	1.07	0.80
Jan 2016	$7,702	$7,214	$8,233	0.94	0.88	$22,522	$23,130	$28,053	1.03	0.82
Feb 2016	$7,948	$7,288	$8,959	0.92	0.81	$30,470	$30,417	$37,012	1.00	0.82
Mar 2016	$9,249	$8,693	$9,857	0.94	0.88	$39,719	$39,111	$46,869	0.98	0.83
Apr 2016	$20,237	$18,288	$8,046	0.90	2.27	$59,956	$57,399	$54,916	0.96	1.05
May 2016	$10,335					$70,291				
Jun 2016	$7,086					$77,377				
Jul 2016	$7,286					$84,663				
Aug 2016	$5,463					$90,126				
Sep 2016	$11,793					$101,919				
CTD	$652,434	$642,626	$664,888	0.98	0.97					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
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SPI = schedule performance index

Retrieve and Close Single Shell Tanks (5.02)

The current month **unfavorable** schedule variance (SV) of ($1,949K) is due to:

- Delay in hiring additional A/AX Farm construction resources due to re-sequencing/planning of major field work as a result of fiscal year (FY) 2016 deferrals and continue to review existing personnel.
- AX-102 and AX-104 ERSS and support retrieval equipment fabrication have been suspended and re-sequenced

The current month **favorable** cost variance (CV) of $10,424K is due to:

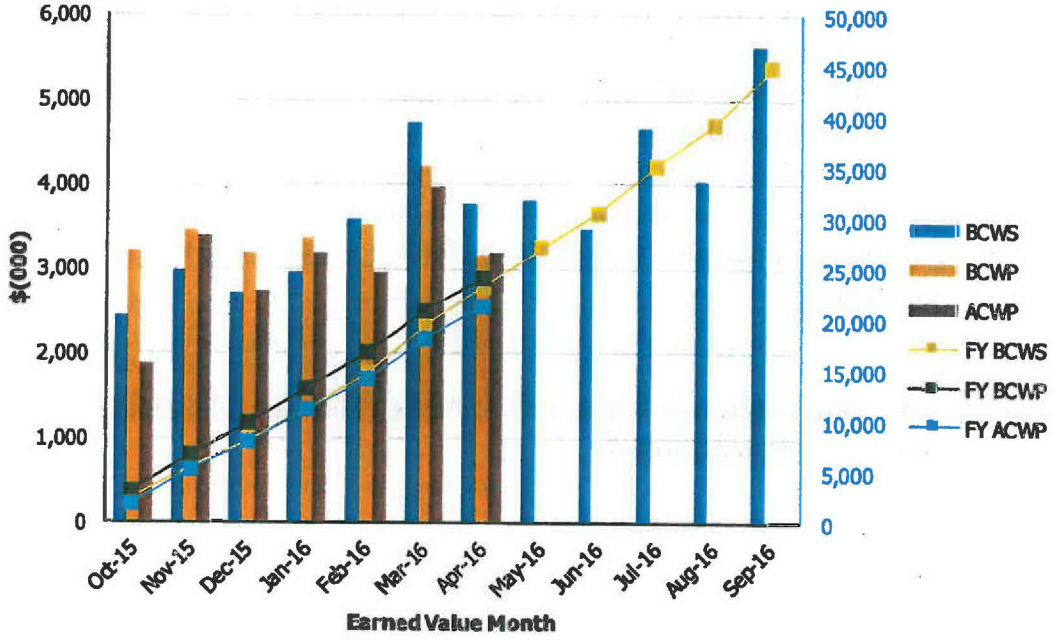
- Contract Modification 373 (Vapor Impact for FY 2015) was implemented during April which resulted in a point adjustment to FY 2015 work scope. This adjustment provided cost relief to control accounts that were impacted by the implementation of additional respiratory requirements associated with tank farm vapors.

Earned Value Data: Fiscal Year 2016 April-16

Tank Farms ORP-0014

Waste Feed Delivery/Treatment/Double-Shell Tank Retrieval Closure 5.03

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$2,434	$3,210	$1,876	1.32	1.71	$2,434	$3,210	$1,876	1.32	1.71
Nov 2015	$2,987	$3,446	$3,379	1.15	1.02	$5,421	$6,656	$5,255	1.23	1.27
Dec 2015	$2,714	$3,193	$2,743	1.18	1.16	$8,134	$9,849	$7,998	1.21	1.23
Jan 2016	$2,966	$3,366	$3,180	1.13	1.06	$11,101	$13,215	$11,178	1.19	1.18
Feb 2016	$3,583	$3,518	$2,966	0.98	1.19	$14,683	$16,733	$14,144	1.14	1.18
Mar 2016	$4,740	$4,210	$3,979	0.89	1.06	$19,424	$20,943	$18,124	1.08	1.16
Apr 2016	$3,777	$3,155	$3,183	0.84	0.99	$23,200	$24,098	$21,307	1.04	1.13
May 2016	$3,824					$27,025				
Jun 2016	$3,467					$30,492				
Jul 2016	$4,666					$35,158				
Aug 2016	$4,046					$39,204				
Sep 2016	$5,632					$44,836				
CTD	$351,872	$350,374	$326,389	1.00	1.07					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
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EVMS = Earned Value Management System.
FY = fiscal year.
SPI = schedule performance index

Waste Feed Delivery/Treatment/Double-Shell Tank Retrieval Closure (5.03)

The current month **unfavorable** schedule variance (SV) of ($622K) variance has no large contributor, but is instead made up many small variances. The primary contributors to the variance include:

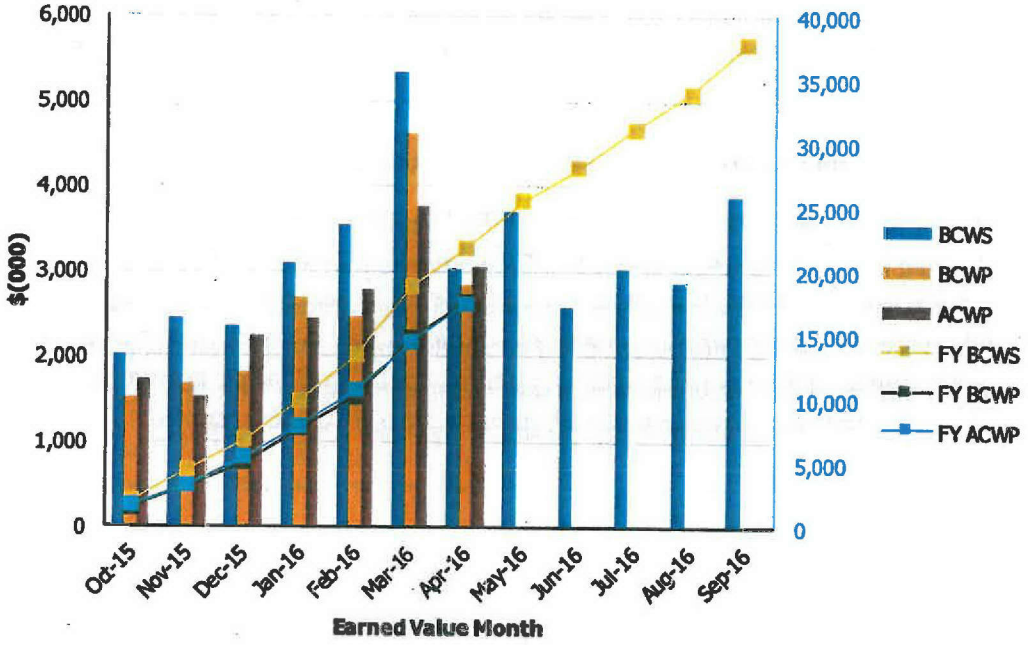
- A delay for the start of Glass Testing. The start of testing was delayed; however, the testing activities have been condensed to allow for testing data to be produced on schedule and allows downstream activities to complete as planned.
- The previous months delay in the issuance of the Task Technology & Quality Assurance Plan delayed the start of subsequent activities; however, additional Pacific Northwest National Lab (PNNL) resources have been identified and will provide additional support for the downstream activities to mitigate any further schedule delays. There is no impact to the critical path.

The current month **unfavorable** cost variance (CV) of ($28K) is below the reporting threshold and does not require a variance narrative.

Earned Value Data: Fiscal Year 2016 April-16

Tank Farms ORP-0014
Treat Waste 5.5

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$2,008	$1,513	$1,735	0.75	0.87	$2,008	$1,513	$1,735	0.75	0.87
Nov 2015	$2,439	$1,669	$1,517	0.68	1.10	$4,447	$3,182	$3,252	0.72	0.98
Dec 2015	$2,351	$1,814	$2,245	0.77	0.81	$6,798	$4,996	$5,497	0.73	0.91
Jan 2016	$3,090	$2,691	$2,451	0.87	1.10	$9,888	$7,687	$7,948	0.78	0.97
Feb 2016	$3,550	$2,460	$2,775	0.69	0.89	$13,438	$10,147	$10,723	0.76	0.95
Mar 2016	$5,343	$4,613	$3,760	0.86	1.23	$18,781	$14,760	$14,482	0.79	1.02
Apr 2016	$3,018	$2,838	$3,060	0.94	0.93	$21,799	$17,598	$17,542	0.81	1.00
May 2016	$3,705					$25,503				
Jun 2016	$2,580					$28,083				
Jul 2016	$3,038					$31,121				
Aug 2016	$2,872					$33,993				
Sep 2016	$3,888					$37,881				
CTD	$39,791	$35,024	$34,164	0.88	1.03					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CTD = contract to date
EVMS = Earned Value Management System.
FY = fiscal year.
SPI = schedule performance index

Treat Waste (5.5)

The current month **unfavorable** schedule variance (SV) of ($180K) is due to:

- Delays in procurement, fabrication and testing of the Full-Scale Ion Exchange Column and 1/9 Scale Integrated Testing activities. These delays are caused by updates to the procurement strategies based on design maturity and by shipping dates which were approximately one month longer and later than assumed in the original schedule.

The current month **unfavorable** cost variance (CV) of ($222K) is due to:

- In the prior period, performance was claimed for procurement of Full-Scale Ion Exchange testing equipment and materials when the purchase orders were released to the vendor, but prior to the receipt and acceptance of the materials and equipment. The subcontractor's prior period accrual did not include the costs of materials not yet received and accepted. In the current reporting period, the subcontractor accrual included the cost associated with those materials and equipment received and accepted.

Single-Shell Tank Closure Program

M-045-00, Complete closure of all SST farms, Due: January 31, 2043, Status: On schedule.

M-045-56L, Complete Implementation of Agreed to Interim Measures, Due: July 28, 2016, Status: On Schedule. An annual meeting is held between ORP and Ecology to discuss the prior FY accomplishments and the next FY proposed interim measures. The last annual meeting was held July 15, 2015, and these meeting minutes were placed in the Administrative Record in this location: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0080444H

M-045-59, Control surface water infiltration pathways as needed to control or significantly reduce the likelihood of migration of subsurface contamination to groundwater at the SST Waste Management Areas (WMA) (pending the Corrective Measures Study report, Milestone M-45-58, and implementation of other interim corrective measures), Due: To be determined, Status: On schedule.

M-045-61A, Submit to Ecology for review and approval as an Agreement primary document, document review process, a Phase 2 Corrective Measures Study, and Revision 0 update to the RFI Report for WMA-C), Due: December 31, 2016, Status: On Schedule. The RPP-RPT-58339, *Phase 2 RCRA Facility Investigation Report* Draft A for Waste Management Area C (WMA-C), was transmitted to Ecology on December 23, 2014, via letter 14-TF-0131. "The U.S. Department of Energy, Office of River Protection Submittal of the Draft Resource Conservation and Recovery Act Facility Investigation Report for Waste Management Area C in Completion of Milestone M-045-61." This milestone was created by *Hanford Federal Facility Agreement and Consent Order* (HFFACO) change package M-045-14-03, signed October 1, 2014.

M-045-62, Submit to Ecology for review and approval as an agreement primary document a Phase 2 Corrective Measures Study Implementation Plan for WMA-C, Due: Six months after the approval of the corrective measures study (CMS) submitted under milestone M-045-61A. Status: On schedule. TPA change control form M-045-15-02 approved on April 14, 2015.

M-045-82, Submit complete permit mod requests for Tiers 1, 2, and 3 of the SST, Due: September 30, 2015, Status: In dispute. Please see issues.

M-045-83, Complete the closure of WMA-C, Due: June 30, 2019, Status: To be missed. Please see issues.

M-045-84, Complete negotiations of TPA interim milestones for closure of second WMA, Due: January 31, 2017, Status: At risk.

M-045-85, Complete negotiations of TPA interim milestones for closure of remaining WMAs, Due: January 31, 2022, Status: On schedule.

M-045-92 (N, O, P, Q, R) Complete Installation of Four (4) Additional Interim Barriers, Due: October 31, 2017, Status: In dispute. Please see issues.

Significant Past Accomplishments:

- Completed the WMA-C Soil Contamination Inventory Estimates (RPP-RPT-42294, Rev, 2)

Significant Planned Activities in the Next Six Months:

- Continue data collection for T Farm and TY Farm interim surface barrier monitoring and develop the annual interim barrier monitoring report for FY 2015.
- Complete TPA/Resource Conservation and Recovery Act (RCRA) Tier 2 and Tier 3 Closure Plans
- Finalize/Issue Integrated Disposal Facility Performance Assessment (PA) summary analysis.
- Complete the waste management area (WMA) C Appendix I PA

Issues:

- **M-045-82, Submit complete permit mod requests for Tiers 1, 2, and 3 of the SST**
  - Change Control Form M-45-15-03 was submitted by ORP via letter 15-TF-0065, "The U.S. Department of Energy, Office of River Protection Transmittal of Hanford Federal Facility Agreement and Consent Order Change Control Form M-45-15-03 to Modify Milestone M-045-82 for Approval," to Ecology for approval on June 30, 2015.
  - Ecology disapproved M-45-15-03 via letter 15-NWP-128, "Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Change Control Form, Change Number M-45-15-03, Dated June 25, 2015," on July 14, 2015.
  - ORP initiated dispute resolution via letter 15-TF-0069, "Initiation of Dispute Resolution Regarding Disapproval of Hanford Federal Facility Agreement and Consent Order Change Control Form M-45-15-03," on July 16, 2015.
  - ORP submitted a closure schedule to Ecology on January 13, 2016.
  - This dispute has been extended to May 28, 2016 via letter 16-TF-0035. "*Extension at the Project Manager Level for the Hanford Federal Facility Agreement and Consent Order Dispute Regarding Disapproval of Change Control Form M-45-15-03.*"
  - This dispute has been extended to August 1, 2016 via letter 16-TF-0055 "*Extension at the Project Manager Level for the Hanford Federal Facility Agreement and Consent Order Dispute Regarding Disapproval of Change Control Form M-45-15-03 to Modify Interim Milestone M-045-82.*"

- **M-045-92 (N, O, P, Q, R), Complete Installation of Four Additional Interim Barriers**
  - (N) Construct SX interim surface barriers (ISB) 1 and 2 by October 31, 2015

- (O) Design ISB 3 by June 30, 2015
- (P) Construct ISB 3 by October 31, 2016
- (Q) Design ISB 4 by June 30, 2016
- (R) Construct ISB 4 by October 31, 2017
- Change control form M-45-15-01 was submitted by ORP via letter 15-TF-0027, "Transmittal for Approval of the Hanford Federal Facility Agreement and Consent Order Change Control Form M-45-15-01 to Modify Milestone M-045-92 Due Dates," to Ecology for approval on March 31, 2015.
- Ecology disapproved M-45-15-01 via letter 15-NWP-075, "Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Change Control Form, Change Number M-45-15-01, dated 03/26/15," on April 17, 2015.
- ORP initiated dispute resolution via letter 15-TF-0042, "Initiation of Dispute Resolution Regarding Disapproval of Hanford Federal Facility Agreement and Consent Order Change Control Form M-45-15-01," on April 20, 2015.
- ORP elevated this matter to the Interagency Management Integration Team (IAMIT) for resolution via submission of a statement of dispute on February 16, 2016 (16-TF-0016, "Statement of Dispute Regarding Disapproval of Hanford Federal Facility Agreement and Consent Order Change Control Form M-45-15-01").
- In accordance with Decision/Determination/Action Assignment Number 2016-001: ORP and Ecology have extended the deadline for resolution of the M-45-15-01 dispute at the IAMIT level the next regularly-scheduled IAMIT meeting (March 17, 2016) following the entry of a final order modifying the Consent Decree in State of Washington vs United States. Department of Energy, No. 08-5085-RMP.
- In accordance with Decision/Determination/Action Assignment Number 2016-002: The IAMIT has agreed that the dispute on change control form M-45-15-01 is extended at the IAMIT level until May 20, 2016.
- In accordance with Decision/Determination/Action Assignment Number 2016-003: The IAMIT has agreed that the dispute on change control form M-45-15-01 is extended at the IAMIT level until June 3, 2016.
- In accordance with Decision/Determination/Action Assignment Number 2016-004: The IAMIT has agreed that the dispute on change control form M-45-15-01 is extended at the IAMIT level until June 30, 2016.

Single-Shell Tank Retrieval Program

M-045-70, Complete waste retrieval from all remaining SSTs, Due: December 31, 2040, Status: On schedule.

M-045-86, Submit retrieval data report (RDR) to Ecology for 19 tanks retrieved, Due: To be determined (12 months after retrieval certification), Status: On schedule.

- M-045-86I: RDR for C-101 was due September 24, 2015, completed on September 24, 2015 with letter 15-TF-0099, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-101."
- M-045-86C: RDR for C-104 was due March 21, 2014, completed on February 18, 2014 with letter 14-TF-0013, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-104."
- M-045-86E: RDR for C-107 was due July 28, 2015, completed on September 15, 2015 with letter 15-TF-0086, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-107."
- M-045-86F: RDR for C-108 was due May 1, 2014, completed on November 27, 2013 with letter 13-TF-0120, "Submittal of Retrieval Data Report for Single-Shell Tank 241-C-108, RPP-RPT-55896, Revision 1."
- M-045-86G: RDR for C-109 was due June 4, 2014, completed on March 13, 2014 with letter 14-TF-0020, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-109."
- M-045-86H: RDR for C-110 was due January 29, 2015, completed on August 6, 2014 with letter 14-TF-0086, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-110."
- M-045-86K: RDR for C-112 was due September 30, 2015, completed on September 30, 2015 with letter 15-TF-0098, "The U.S. Department of Energy, Office of River Protection Submits the Retrieval Data Report for Tank 241-C-112."

Significant Past Accomplishments:

- Completed post retrieval samples of Tank C-102.
- Obtained Tank 241-C-105 in-process sample.
- Began removal of the Tank C-105 Mobile Arm Retrieval System – Vacuum (MARS-V) equipment, to ready tank for modification to modified sluicing system (remaining volume of 67,300 gallons)
- Completed removal of ancillary equipment from Tank 241-C-105 pits A and C in preparation for modified sluicing system installation
- Performed the ISR to support the containment box, rotary union, and hoses removal for C-105

- Removed HIHTLs between the portable instrument valve box and containment box for C-105
- Completed three retrieval technologies at Tank 241-C-111.
- Procured sampling equipment for Tank 241-C-111 post retrieval samples
- Initiated Tank 241-C-111 post-retrieval sampling
- Installed the Ingress/Egress Trailers and underground utilities for the A/AX Change trailers (4th and Buffalo)
- Excavated and installed the West Electrical/Telecommunications system for the AX Air and Water Service Building
- Received and inspected the sump pump assembly and discharge for AX-102 and AX-104
- Completed the installation of the Duct Work Supports for AX-102 to AX-104 at R7C
- Completed installation of the duct work from POR126 to AX-102
- Shipped AX-02A and AX-02D cover blocks to ERDF for disposal
- Continued pit cleanout of Tank 241-AX-104, 04A pit
- Began preparations for pit cleanout of Tank 241-AX-01, 01D pit
- Completed removal of above grade portion of Building AX-2707
- Completed Tank 241-AX-104 cover block removal
- Completed pit cleanout of Tank 241-AX-102, 02A pit.
- Initiated pit cleanout of Tank 241-AX-104, 04D pit
- Completed removal of Building AX-80

Significant Planned Activities in the Next Six Months:

- Obtain Tank Waste Retrieval Work Plan (TWRWP) modification approval for Tank C-105 third retrieval technology
- Negotiate contract proposal for installing and performing the third retrieval technology at Tank C-105
- Complete Tank C-105 MARS-V containment box disassembly
- Complete Tank C-105 modified sluicing system design
- Receive Tank C-105 extended reach sluicers
- Complete Tank C-111 post-retrieval sampling
- Issue Tank C-111 Retrieval Completion Certification
- Complete procurement of the water services building to support A/AX
- Complete AX ventilation installation and commence testing at portable exhauster POR-126

- Complete cleanout of Tank 241-AX-104 pits 04A, and 04D, and initiate debris removal from 04C
- Complete cleanout of Tank 241-AX-102 pits 02D, and 02B, and initiate debris removal from 02C
- Complete AX-2707 fencing and gate upgrades
- Complete building AX-2707 removal and disposal
- Complete building AX-2707 below grade removal and disposal
- Complete A/AX infrastructure (water and utilities) design
- Complete Tank 241-AX-102 and 241-AX-104 Extended Reach Sluicing System (ERSS) procurement
- Complete A Farm ventilation design
- Submit RDR for 241-C-102

Issues: None.

Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
AX-101	RPP-RPT-58932, Draft	Initial Approval	Sluicing with ERSS	High-Pressure Water deployed with ERSS	-
AX-102	RPP-RPT-58933, Draft	Initial Approval	Sluicing with ERSS	High-Pressure Water deployed with ERSS	-
AX-103	RPP-RPT-58934, Draft	Initial Approval	Sluicing with ERSS	High-Pressure Water deployed with ERSS	-
AX-104	RPP-RPT-58935, Draft	Initial Approval	Sluicing with ERSS	High-Pressure Water deployed with ERSS	-
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-104	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 8	Third Technology	MARS-V	MARS-V-High Pressure Water Spray	TBD
C-107	RPP-22393, Rev. 7	Complete	MARS-S	MARS-S -High Pressure Water Spray	Water Dissolution
C-108	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0037	-
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

ERSS = Extended Reach Sluicing System
MARS = Mobile Arm Retrieval System
S = sluicing
TBD = To Be Determined
TWRWP = Tank Waste Retrieval Work Plan
V = vacuum

Significant Accomplishments: None.

Significant Planned Activities in the Next Six Months:

- Finalize AX Farm tank waste retrieval work plans.
- Modify RPP-22520, *241-C-101, and 241-C-105, Tanks Waste Retrieval Work Plan*, (C-105 TWRWP) to include a third technology for C-105 retrieval — Draft TWRWP modification submitted to Ecology for review in April 2016.

Issues: None.

Tank in Appendix H, "Status - Single Shell Waste Retrieval Criteria"

Tank 241-C-106

Significant Past Accomplishments: None.

Significant Planned Activities in the Next Six Months:

- Continue U.S. Nuclear Regulatory Commission (NRC) review of the C-106 exception request. A request for additional information was received from the NRC in February 2009.

Issues:

- It has been discussed with the NRC that much of the additional information requested is dependent upon development of C Farm residual waste PA and, therefore, cannot be provided until the PA is published.

Tank Retrievals with Individual Milestones

Tank 241-A-103

M-045-15, Completion of Tank A-103 SST Waste Retrieval, Due: September 30, 2022, Status: On schedule. Change package M-045-11-04 replaced Tank S-102 with Tank A-103 and changed the milestone completion date for M-045-15 to September 30, 2022.

M-045-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I, Due: September 30, 2022, Status: On schedule. Updated with Tank A-103 and due date of September 30, 2022, per change package M-045-11-04.

M-045-15D, Embedded Milestone, if appropriate, DOE will request an exception to waste retrieval criteria pursuant to Agreement Appendix H, Due: September 30, 2022, Status: On schedule. Updated with Tank A-103 and due date of September 30, 2022, per change package M-045-11-04.

Significant Past Accomplishments:

- Change package M-045-11-04 was signed by ORP and Ecology on April 19, 2011.

No significant planned activities in the next six months and no issues for Tank 241-A-103.

Tank 241-S-112

M-045-13, Interim Completion of Tank S-112 SST Waste Retrieval and Closure Demonstration Project, Due: To be determined (in accordance with M-045-84 or M-045-85), Status: On schedule.

M-045-13E, Complete Negotiations for Interim Milestones for Closure of S-112, Due: To be determined, Status: On schedule as part of M-045-84 or M-045-85.

Significant Past Accomplishments:

- Ecology letter of January 7, 2008, concurred with ORP that retrieval of Tank S-112 is complete.

No significant planned activities in the next six months and no issues for Tank 241-S-112.

Final

Office of River Protection
Consent Decree 2:08-CV-5085-RMP (2016)

Monthly Report

June 2016

Office of River Protection

Consent Decree 08-5085-FVS and Consent Decree 2:08-CV-5085-RMP

Monthly Report – June 2016

Project Earned Value Management System reflects April 2016 information

CD = Consent Decree

CD Milestone Statistics/Status

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2020				
D-00A-07 Interim	LAW Facility Construction Substantially Complete	12/31/2020		On Schedule
D-16B-03*	Of the 12 SSTs referred to in B-1 and B-2, complete retrieval of tank waste in at least 5.	12/31/2020		On Schedule
Fiscal Year 2022				
D-00A-08 Interim	Start LAW Facility Cold Commissioning	12/31/2022		On Schedule
Fiscal Year 2023				
D-00A-09 Interim	LAW Facility Hot Commissioning Complete	12/31/2023		On Schedule
Fiscal Year 2024				
D-16B-01*	Complete Retrieval of Tank Waste from the following remaining SSTs in WMA-C: C-102, C-105 and C-111	03/31/2024		On Schedule
D-16B-02*	Complete retrieval of tank wastes from the following SSTs in Tank Farms A and AX: A-101, A-102, A-104, A-105, A-106. AX-101, AX-102, AX-103, and AX-104. Subject to the requirements of Section IV-B-3 DOE may substitute any of the identified 9 SSTs and advice Ecology accordingly.	03/31/2024		On Schedule
Fiscal Year 2030				
D-00A-02 Interim	HLW Facility Construction Substantially Complete	12/31/2030		On Schedule
Fiscal Year 2031				
D-00A-13 Interim	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2031		On Schedule
D-00A-14 Interim	PT Facility Construction Substantially Complete	12/31/2031		On Schedule

Milestone	Title	Due Date	Completion Date	Status
D-00A-19 Interim	Complete Elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2031		On Schedule
Fiscal Year 2032				
D-00A-03 Interim	Start HLW Facility Cold Commissioning	06/30/2032		On Schedule
D-00A-06 Interim	Complete Methods Validations	06/30/2032		On Schedule
D-00A-15 Interim	Start PT Facility Cold Commissioning	12/31/2032		On Schedule
Fiscal Year 2033				
D-00A-04 Interim	HLW Facility Hot Commissioning Complete	12/31/2033		On Schedule
D-00A-16 Interim	PT Facility Hot Commissioning Complete	12/31/2033		On Schedule
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2033		On Schedule
Fiscal Year 2036				
D-00A-01	Achieve Initial Plant Operations for the Waste Treatment Plan**	12/31/2036		On Schedule

* Milestones B-1, B-2, and B-3 narrative changed in accordance with 2016 amended Consent Decree (CD). Per this amendment, there is no longer a milestone B-4.
** Error in the CD - last word of the D-00A-01 milestone should be Plant

CD = Consent Decree.
DOE = U.S. Department of Energy
Ecology = Washington State Department of Ecology
HLW = high-level waste.
LAW = low-activity waste.
PT = pretreatment.
SST = single-shell tank.
WMA-C = C Farm waste management area.

Consent Decree Reports/Reviews

D-16C-03 series, Submit to State of Washington and State of Oregon Quarterly Report, Due: July 31, 2016, Status: On Schedule.
In accordance with the 2016 Amended Consent Decree, DOE will provide quarterly instead of semiannual reports.
The January 2016 Semiannual Report was issued on January 29, 2016, via U.S. Department of Energy (DOE), Office of River Protection (ORP) letter 16-ECD-0006, "January 2016 Semi-Annual Report for State of Washington vs. U.S. Department of Energy, Case No. 08-5085-FVS, for Waste Treatment and Immobilization Plant Construction and Startup Activities and Tank Retrieval Activities – May 1, 2015, thorough October 31, 2015."

D-00C-02 series, Submit to State of Washington and State of Oregon Monthly Summary Reports, Due: End of each month, Status: On Schedule.

D-006-00-B1, Provide State of Oregon notice of meetings in D-006-00-B, etc. no less than 30 days before they are scheduled, Due: September 25, 2016, Status: On Schedule.

D-006-00-B, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree, Due: October 25, 2016, Status: On Schedule.

Spare Reboiler Requirement Status

Milestone	Title	Due Date	Status
D-16E-01	DOE must purchase by December 31, 2016 a spare A-E-1* reboiler for the 242-A Evaporator**	12/31/2016	On Schedule
D-16E-02	Have available spare A-E-1* reboiler for the 242-A Evaporator**	12/31/2018	On Schedule

* Error in the Consent Decree (CD), part should be identified as E-A-1
**CD 08-5085-FVS, Part IV B.5 as amended by No. 2:08-CV-5085-RMP dated April 12, 2016

Description of activity and progress made for the spare E-A-1 re-boiler for the 242-A Evaporator:

- Since issuance of the March 11, 2016 amended consent order, DOE has provided the contractor with funding to accelerate the planned fiscal year (FY) 2017 work to design and procure the spare E-A-1 re-boiler. ORP authorized Washington River Protection Solutions LLC (WRPS) to proceed by awarding a not-to-exceed (NTE) contract action. The contractor is currently underway generating a procurement specification for the new spare 242-A Evaporator re-boiler. The current procurement strategy is to award a design/build procurement contract with a vendor by November 20, 2016.
- Efforts continue in regard to the generation of a functions and requirements evaluation document (FRED) Washington River Protection Solutions (WRPS) engineering has completed the failure mode and effects analysis (FMEA) document. An expression of interest was submitted Tuesday, April 19 to solicit responses from NQA-1, ASME Section 8 design and build fabrication vendors. Responses to the expression of interest were due May 30, 2016. A technical evaluation of the 242-A process steam been completed. Results of the technical evaluation support the use of 304L, stainless steel for the fabrication of the re-boiler. A design specification is also being generated for the new spare 242-A Evaporator re-boiler. This specification will be attached to a statement of work (SOW) submitted to the request for proposal (RFP) to solicit a design/ build vendor.

Single-Shell Tank Retrieval Program

Milestone	Title	Due Date	Status
D-16B-03	Of the 12 SSTs referred to in B-1 and B-2, complete retrieval of tank waste in at least 5.	12/31/2020*	On Schedule
D-16B-01	Complete retrieval of tank waste from the following remaining SSTs in WMA-C: C-102, C-105 and C-111	03/31/2024	On Schedule
D-16B-02	Complete retrieval of tank wastes from the following SSTs in Tank Farms A and AX: A-101, A-102, A-104, A-105, A-106, AX-101, AX-102, AX-103, and AX-104. Subject to the requirements of Section IV-B-3 DOE may substitute any of the identified 9 SSTs and advice Ecology accordingly.	03/31/2024	On Schedule

* Pursuant to Section IV-B-~~5~~ 7 of the Consent Decree, the U.S. Department of Energy (DOE) must submit to the Washington State Department of Ecology (Ecology) a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the Consent Decree.

DOE = U.S. Department of Energy
SST = single shell tank
WMA-C = C Farm waste management area.

Significant Accomplishments during the Prior Three Months:

- Completed post retrieval samples of Tank C-102.
- Obtained Tank 241-C-105 in-process sample.
- Started preparations for equipment removal of the Tank C-105 Mobile Arm Retrieval System – Vacuum (MARS-V),, to ready tank for modification to modified sluicing system (remaining volume of 67,300 gallons)
- Completed removal of ancillary equipment from Tank 241-C-105 pits A and C in preparation for modified sluicing system installation
- Performed the investigation survey request (ISR) to support the containment box, rotary union, and hoses removal for C-105
- Removed hose in hose transfer lines (HIHTL) between the portable instrument valve box and containment box for C-105
- Completed three retrieval technologies at Tank 241-C-111.

- Procured sampling equipment for Tank 241-C-111 post retrieval samples
- Started preparations for post-retrieval sampling of Tank 241-C-111
- Installed the Ingress/Egress Trailers and underground utilities for the A/AX Change trailers (4th and Buffalo)
- Excavated and installed the West Electrical/Telecommunications system for the AX Air and Water Service Building
- Received and inspected the sump pump assembly and discharge for AX-102 and AX-104
- Completed the installation of the Duct Work Supports for AX-102 to AX-104 at R7C
- Completed installation of the duct work from POR126 to AX-102
- Shipped AX-02A and AX-02D cover blocks to ERDF for disposal
- Completed Tank 241-AX-104 cover block removal
- Completed pit cleanout of Tank 241-AX-102, 02A pit.
- Continued pit cleanout of Tank 241-AX-104, 04A pit
- Completed removal of Building AX-80
- Began preparations for pit cleanout of Tank 241-AX-102, 02D pit
- Completed removal of above grade portion of building AX-2707

Significant Planned Activities in the Next Three Months:

- Obtain Tank Waste Retrieval Work Plan (TWRWP) modification approval for Tank C-105 third retrieval technology
- Negotiate contract proposal for installing and performing the third retrieval technology at Tank C-105
- Complete Tank C-105 MARS-V containment box disassembly
- Complete Tank C-105 modified sluicing system design
- Receive Tank C-105 extended reach sluicers
- Complete Tank C-111 post-retrieval sampling
- Issue Tank C-111 Retrieval Completion Certification
- Complete procurement of the water services building to support A/AX
- Complete AX ventilation installation and commence testing at portable exhauster POR-126
- Complete cleanout of Tank 241-AX-104 pits 04A, 04D and initiate debris removal from 04C

- Complete cleanout of Tank 241-AX-102 pits 02D, 02B and initiate debris removal from 02C
- Complete AX-2707 fencing and gate upgrades
- Complete Building AX-2707 below grade removal and disposal
- Complete A/AX infrastructure (water and utilities) design.
- Complete Tank 241-AX-102 and 241-AX-104 Extended Reach Sluicing System (ERSS) procurement.
- Complete A Farm ventilation design

Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
AX-101	RPP-RPT-58932, Draft	Initial Approval	Sluicing with ERSS	High-Pressure Water deployed with ERSS	-
AX-102	RPP-RPT-58933, Draft	Initial Approval	Sluicing with ERSS	High-Pressure Water deployed with ERSS	-
AX-103	RPP-RPT-58934, Draft	Initial Approval	Sluicing with ERSS	High-Pressure Water deployed with ERSS	-
AX-104	RPP-RPT-58935, Draft	Initial Approval	Sluicing with ERSS	High-Pressure Water deployed with ERSS	-
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-104	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 8	Third Technology	MARS-V	MARS-V-High Pressure Water Spray	TBD
C-107	RPP-22393, Rev. 7	Complete	MARS-S	MARS-S-High Pressure Water Spray	Water Dissolution
C-108	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0037	-
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

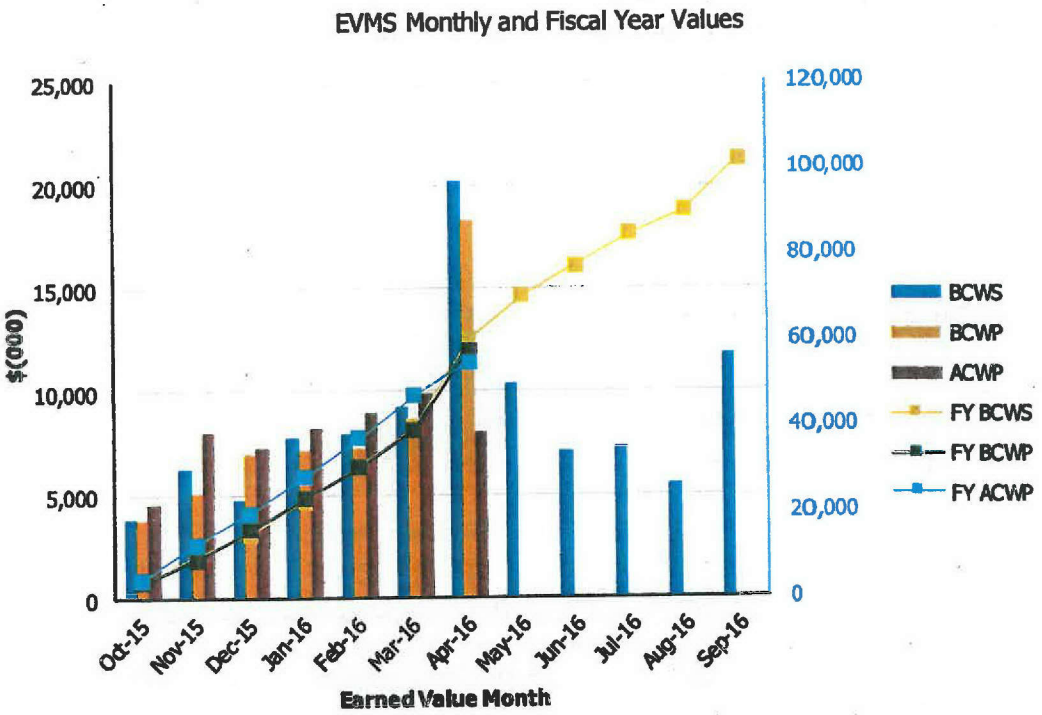
ERSS = extended reach sluicing system.
MARS = Mobile Arm Retrieval System.
S = sluicing.
TBD = to be determined
TWRWP = Tank Waste Retrieval Work Plan.
V = vacuum.

Significant Planned Activities in the Next Three Months:

- Finalize AX Farm tank waste retrieval work plans (TWRWPs).
- Modify RPP-22520 *241-C-101 and 241-C-105 Tanks Waste Retrieval Work Plan* (C-105 TWRWP) to include a third technology for Tank C-105 retrieval—Draft TWRWP modification submitted to Ecology for review in April 2016.

Earned Value Data: Fiscal Year 2016 April-16

Tank Farms ORP-0014
Retrieve and Close SST's 5.02



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$3,770	$3,814	$4,560	1.01	0.84	$3,770	$3,814	$4,560	1.01	0.84
Nov 2015	$6,282	$5,131	$8,006	0.82	0.64	$10,052	$8,946	$12,566	0.89	0.71
Dec 2015	$4,769	$6,970	$7,255	1.46	0.96	$14,821	$15,915	$19,821	1.07	0.80
Jan 2016	$7,702	$7,214	$8,233	0.94	0.88	$22,522	$23,130	$28,053	1.03	0.82
Feb 2016	$7,948	$7,288	$8,959	0.92	0.81	$30,470	$30,417	$37,012	1.00	0.82
Mar 2016	$9,249	$8,693	$9,857	0.94	0.88	$39,719	$39,111	$46,869	0.98	0.83
Apr 2016	$20,237	$18,288	$8,046	0.90	2.27	$59,956	$57,399	$54,916	0.96	1.05
May 2016	$10,335					$70,291				
Jun 2016	$7,086					$77,377				
Jul 2016	$7,286					$84,663				
Aug 2016	$5,463					$90,126				
Sep 2016	$11,793					$101,919				
CTD	$652,434	$642,626	$664,888	0.98	0.97					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CTD = contract to date.
EVMS = earned value management system.
FY = fiscal year.
SPI = schedule performance index.

Retrieve and Close Single-Shell Tanks (5.02)

The current month **unfavorable** schedule variance (SV) of ($1,949K) is due to:

- Delay in hiring additional A/AX Farm construction resources due to re-sequencing/planning of major field work as a result of fiscal year (FY) 2016 deferrals and continue to review existing personnel.
- AX-102 and AX-104 ERSS and support retrieval equipment fabrication have been suspended and re-sequenced

The current month **favorable** cost variance (CV) of $10,424K is due to:

- Contract Modification 373 (Vapor Impact for FY 2015) was implemented during April which resulted in a point adjustment to FY 2015 work scope. This adjustment provided cost relief to control accounts that were impacted by the implementation of additional respiratory requirements associated with tank farm vapors.

Waste Treatment and Immobilization Plant Project

Milestone	Title	Due Date	Status
D-00A-06	Complete Methods Validations	06/30/2032	On Schedule
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2033	On Schedule
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2036	On Schedule

WTP = Waste Treatment and Immobilization Plant

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,965 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 542 craft, 457 non-manual, and 142 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

In October 2012, the percent-complete values for the Pretreatment (PT) and High-Level Waste (HLW) facilities were frozen at the September 2012 rate. Construction, procurement, and production engineering activities were placed on hold for the PT Facility and significantly slowed down for the HLW Facility. In August 2014, the U.S. Department of Energy (DOE) approved continuation of production engineering activities for HLW. Subsequently, DOE has approved the fiscal year (FY) 2015 and FY 2016 2-Year Interim Work Plan. In April 2015, a 3-Year Interim Work Plan for the PT Facility was implemented emphasizing prioritization of technical issue resolution activities. The WTP Project is focused on resolving the PT Facility technical issues and finalizing the HLW Facility design.

The WTP Project continues to focus on completion of the Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) (collectively known as LBL, including direct feed LAW and LBL facility services). As of April 2016, LBL facilities were 47 percent complete, design and engineering was 72 percent complete, procurement was 63 percent complete, construction was 64 percent complete, and startup and commissioning was 10 percent complete.

In April 2016, the cumulative to-date WTP Project schedule variance (SV) was a negative $21.5 million, and the cumulative to-date WTP Project cost variance (CV) was a positive $61.3 million. The cumulative to-date CV and SV is based on the progress of the LBL internal forecast.

The following is the project status through the end of April 2016.

Significant Accomplishments during the Prior Three Months:

- Contractor issued plutonium (Pu) particulate criticality safety evaluation (CSE) engineering study – DOE Office of River Protection (ORP) formal review continues for approval - (PT)
- Contractor issued Erosion/Corrosion Sliding Bed Report to DOE-ORP for approval pending review at this time – (PT)
- Received and staged the thermal catalytic oxidizer (TCO) and ammonia dilution skid (ADS) on greater than the 48 foot (+48′) elevation – (LAW)
- Melter 1 gas barrier lid placed and welding has commenced – (LAW)

- Issued HLW facility hazards analysis to support Preliminary Documented Safety Analysis (PDSA) update - (HLW)
- Completed drilling activities and installation of vertical anodes for cathodic protection system and completed design of rectifier pad – (BOF)
- DOE Office of River Protection (ORP) approved PDSA for the Effluent Management Facility (EMF) – (BOF)

Significant Planned Activities in the Next Three Months:

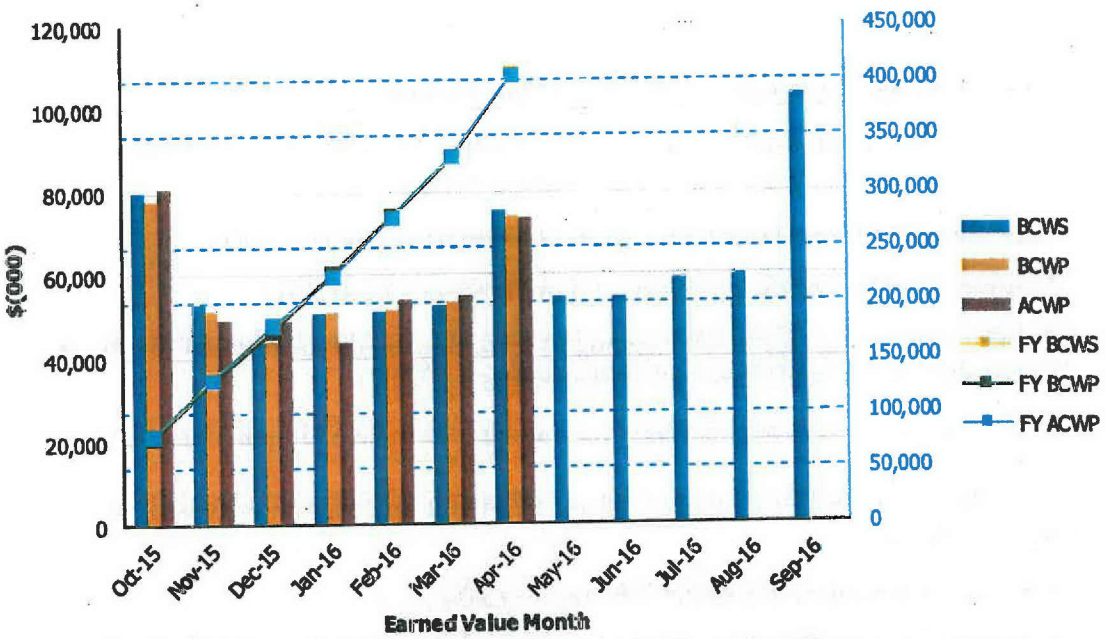
- ORP approval of Hydrogen in Piping and Ancillary Vessels (HPAV) Preliminary Documented Safety Analysis (PDSA) change package – (PT)
- Issue Simulant Basis, Newtonian / Non-Newtonian document – (PT)
- Complete welding of the gas barrier lid onto melter #1 – (LAW)
- Continue full-scale HEPA filter testing to select and qualify additional filter(s) that will support the WTP ventilation and off-gas needs – (HLW)
- Finalize erosion/corrosion simulant for one-quarter scale jet impingement and pipe loop testing – (PT)
- Issue Phase 1 of the HLW melter off-gas treatment process/process vessel vent engineering study – (HLW)
- Place second melter lid castable refractor – (LAW)
- Completed the fire detection (FDE) Acceptance Test. The final test (24-hr drawdown test) will be following replacement of system batteries – (LAB)
- Complete site energization from permanent power supply – (BOF)

EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data Data as of: April 2016

Waste Treatment Plant (WTP) Project

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$79,800	$78,230	$81,000	0.98	0.97	$79,800	$78,230	$81,000	0.98	0.97
Nov 2015	$52,815	$51,614	$49,184	0.98	1.05	$132,615	$129,844	$130,184	0.98	1.00
Dec 2015	$43,659	$44,505	$48,853	1.02	0.91	$176,275	$174,348	$179,037	0.99	0.97
Jan 2016	$50,515	$51,167	$43,662	1.01	1.17	$226,790	$225,515	$222,699	0.99	1.01
Feb 2016	$51,349	$51,492	$54,112	1.00	0.95	$278,139	$277,007	$276,811	1.00	1.00
Mar 2016	$52,395	$53,645	$54,896	1.02	0.98	$330,533	$330,653	$331,707	1.00	1.00
Apr 2016	$75,610	$74,244	$73,679	0.98	1.01	$406,144	$404,897	$405,387	1.00	1.00
May 2016	$54,479									
Jun 2016	$54,206									
Jul 2016	$58,922									
Aug 2016	$59,910									
Sep 2016	$103,355									
PTD	$9,505,907	$9,484,443	$9,423,189	1.00	1.01					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CTD = contract to date.
EVMS = earned value management system.
FY = fiscal year.
SPI = schedule performance index.

Pretreatment Facility

Milestone	Title	Due Date	Status
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2031	On Schedule
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2031	On Schedule
D-00A-14	PT Facility Construction Substantially Complete	12/31/2031	On Schedule
D-00A-15	Start PT Facility Cold Commissioning	12/31/2032	On Schedule
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2033	On Schedule

PT = Pretreatment

The Pretreatment (PT) Facility will separate radioactive tank waste into high-level waste (HLW) and low-activity waste (LAW) fractions, and transfer each waste type to the respective vitrification facility for immobilization. As of September 2012, the PT Facility was 56 percent complete overall, with engineering design 85 percent complete, procurement 56 percent complete, construction 43 percent complete, and startup and commissioning 3 percent complete.

Construction, procurement, and production engineering activities remain on hold, resulting in no change to the percent-complete status since September 2012. Bechtel National, Inc. (BNI) and U.S. Department of Energy (DOE) continue to focus on resolving technical issues, performing hazards analyses, and completing safety evaluations for process systems in accordance with the revised PT Facility 3-year Interim Work Plan

BNI has submitted resolution plans for eight technical issues: T1, Hydrogen in Vessels; T2, Criticality; T3, Hydrogen in Piping and Ancillary Vessels (HPAV); T4, Mixing; T5, Erosion Corrosion; T6, PT Facility Optimization; T7, Vessel Analysis; and T8, Ventilation. Phase 1 of the full-scale vessel testing is continuing for the pulse jet mixers (PJM) controls utilizing the radioactive liquid waste disposal (RLD) 8T vessel. Technical review teams continue to evaluate open PT Facility technical issues. An evaluation is ongoing relative to a standardized design for high-solids vessels within the PT Facility. With primary emphasis on design and fabrication of hold point releases supporting procurement, fabrication, and delivery of the standardized high solids vessel design (SHSVD)-T16ft vessel.

Significant Accomplishments during the Prior Three Months:

- Contractor issued plutonium (Pu) particulate criticality safety evaluation (CSE) engineering study – DOE Office of River Protection (ORP) formal review continues for approval

- Contractor provided hydrogen in piping and ancillary vessels (HPAV) Basis of Design change package (BOD) to DOE-ORP for approval - ORP provided comments back to contractor for resolution
- Contractor submitted HPAV Preliminary Documented Safety Analysis (PDSA) change package to ORP for approval - comments provided to contractor; resubmitting HPAV PDSA package
- Contractor issued Erosion/Corrosion Sliding Bed Report to DOE-ORP for approval pending review at this time
- Contractor completed installation of PJMs in SHSVD-T at Greenberry Industrial, Inc.
- Contractor completed installation of SHSVD-T bubblers
- ORP continues to review Waste Treatment and Immobilization Plant (WTP) Criticality Safety Evaluation Report (CSER)

Significant Planned Activities in the Next Three Months:

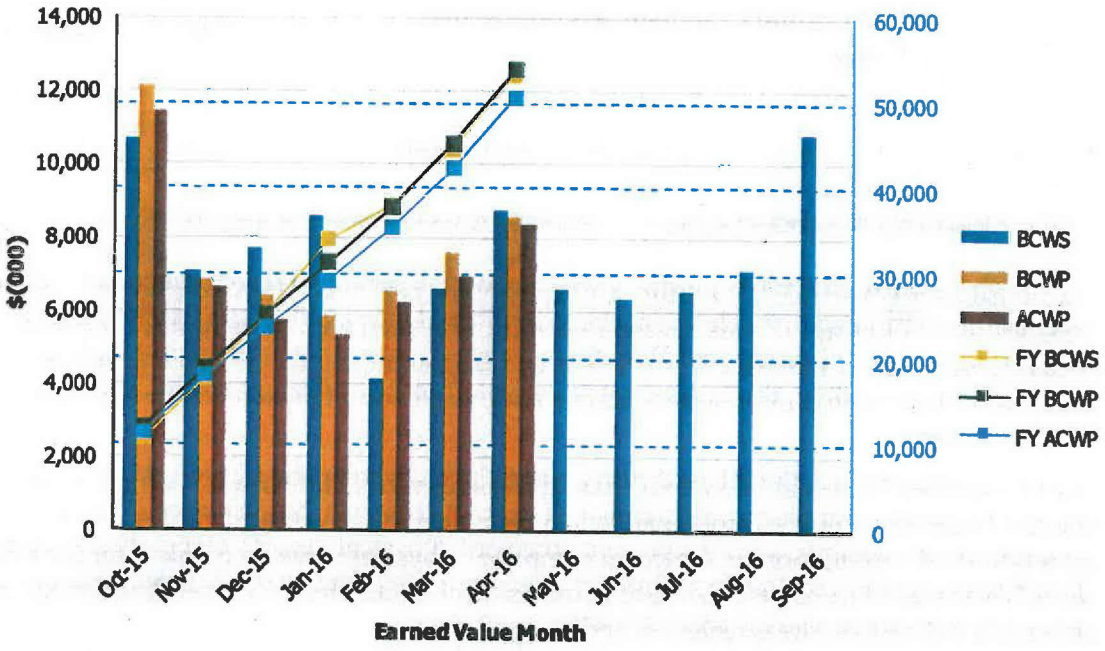
- ORP formal review and approval of Criticality Safety Evaluation Report (CSER)
- Issue and Transmit to ORP Engineering Study – Proposed Controls for Hydrogen Events in PTF, Rev 0
- Complete Hydrogen unmitigated / mitigated consequence calculation
- ORP Approval of HPAV PDSA Change Package
- Issue PJM Controls Phase 3 test software requirements
- Install SHSVD-T 4" pump suction line
- Complete SHSVD-T Hydro Test
- Issue Simulant Basis, Newtonian / Non-Newtonian document
- Issue Simulant Qualification document
- Finalize erosion/corrosion simulant for one-quarter scale jet impingement and pipe loop testing

EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data Data as of: April 2016

River Protection Project
Pretreatment Facility (WBS 1.01)

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$10,667	$12,155	$11,441	1.14	1.06	$10,667	$12,155	$11,441	1.14	1.06
Nov 2015	$7,074	$6,836	$6,648	0.97	1.03	$17,741	$18,991	$18,089	1.07	1.05
Dec 2015	$7,678	$6,441	$5,777	0.84	1.11	$25,419	$25,432	$23,867	1.00	1.07
Jan 2016	$8,595	$5,853	$5,332	0.68	1.10	$34,014	$31,285	$29,199	0.92	1.07
Feb 2016	$4,105	$6,545	$6,220	1.59	1.05	$38,120	$37,830	$35,419	0.99	1.07
Mar 2016	$6,588	$7,604	$6,979	1.15	1.09	$44,708	$45,434	$42,398	1.02	1.07
Apr 2016	$8,717	$8,586	$8,400	0.99	1.02	$53,425	$54,020	$50,798	1.01	1.06
May 2016	$6,603									
Jun 2016	$6,311									
Jul 2016	$6,553									
Aug 2016	$7,125									
Sep 2016	$10,826									
PTD	$1,785,825	$1,785,853	$1,763,357	1.00	1.01					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CTD = contract to date.
EVMS = earned value management system.
FY = fiscal year
SPI = schedule performance index.

High-Level Waste Facility

Milestone	Title	Due Date	Status
D-00A-20	Complete Construction of Structural Steel to 14' in HLW Facility	12/31/2010	Complete
D-00A-21	Complete Construction of Structural Steel to 37' in HLW Facility	12/31/2012	Complete
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2030	* On Schedule
D-00A-03	Start HLW Facility Cold Commissioning	06/30/2032	* On Schedule
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2033	* On Schedule

HLW = high-level waste

* Note – Future HLW milestones are dependent on increased levels of funding becoming available

The High-Level Waste (HLW) Facility will receive the separated HLW concentrate from the Pretreatment (PT) Facility. This concentrate will be blended with glass formers, converted into molten glass in one of the two HLW melters, and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated before shipping to interim storage.

As of September 2012, the HLW Facility was 62 percent complete overall, with engineering design 89 percent complete, procurement 81 percent complete, construction 43 percent complete, and startup and commissioning 4 percent complete. Physical percent complete for the High-Level Waste and Pretreatment facilities is frozen as of September 2012, pending development of a revised baseline to address technical and design issues.

Currently, all activities are being performed in accordance with the fiscal year (FY) 2015/FY 2016 2-Year Work Plan. Efforts are focused on completing activities required to obtain full-production authorization by the U.S. Department of Energy (DOE), including developing longer-term work plans. Limited construction is continuing with the concrete placements, installation of support steel, and crane rails in the melter caves.

Engineering is focused on activities to support implementation of technical core team recommendations, performance of engineering studies and analysis to disposition design and operability review comments. Phase 1 of the HLW melter off-gas treatment process/process vessel vent engineering study, which is evaluating options for system changes to improve the design and operability, is ongoing. Process hazard analysis has been completed to support the Preliminary Documented Safety Analysis (PDSA) update to align design and the safety basis.

Systems engineering continues to develop system design descriptions (SDD), and incorporate SDD requirements into a requirements management system to ensure that all requirements are incorporated into the facility design and subsequently verified prior to completion of HLW facility commissioning.

Multiple high-efficiency particulate air (HEPA) filter media designs are planned to be tested to ensure the qualified filters support the needs for HLW, along with the Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and the Balance of Facilities (BOF) (collectively

known as LBL, including LBL facility services). Testing of the full-scale filter designs at Mississippi State University is ongoing. The third full-scale filter has been tested, showing positive and successful test results. Fabrication of the additional filters and testing continues. Qualification testing of Flanders filters has begun.

Significant Accomplishments during the Prior Three Months:

- Completed full-scale tests of three filters of the first HEPA filter design that showed positive results
- PDSA change package for radioactive liquid waste disposal (RLD) vessels 7 and 8 approved by DOE has been incorporated into the PDSA
- Issued the revised RLD system design description incorporating PDSA changes
- Issued the emergency turbine generator system (ETX) SDD
- Completed roof flashing at interface between the annex and the main facility, thereby rain-proofing the annex
- Approved Mississippi State University's NQA-1 quality assurance program for the HEPA filter testing
- Issued HLW facility hazards analysis to support PDSA update
- Completed several engineering studies to disposition some of the design and operability issues and recommendations

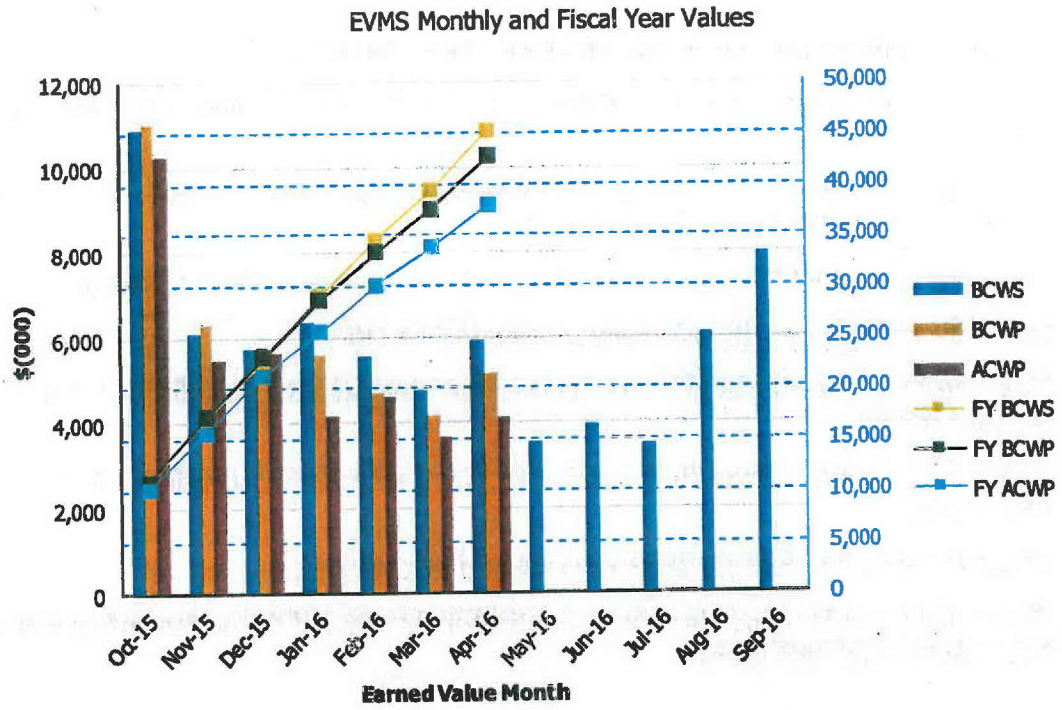
Significant Planned Activities in the Next Three Months:

- Continue full-scale HEPA filter testing to select and qualify additional filter(s) that will support the WTP ventilation and off-gas needs
- Issue Phase 1 of the HLW melter off-gas treatment process/process vessel vent engineering study
- Issue the radioactive waste handling system, decontamination handling system, melter handling system, and melter cave support handling system engineering studies
- Issue an engineering study detailing the potential addition of a melter assembly building/airlock and an additional import/export dock for waste handling
- Submit draft PDSA revision to the DOE Office of River Protection (ORP)
- Continue civil build-out of the HLW Facility focusing on weathering in the building

EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data Data as of: April 2016

River Protection Project
High-Level Waste Facility (WBS 1.03)



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$10,905	$11,028	$10,257	1.01	1.08	$10,905	$11,028	$10,257	1.01	1.08
Nov 2015	$6,103	$6,326	$5,452	1.04	1.16	$17,008	$17,355	$15,708	1.02	1.10
Dec 2015	$5,737	$5,795	$5,634	1.01	1.03	$22,745	$23,150	$21,343	1.02	1.08
Jan 2016	$6,368	$5,591	$4,174	0.88	1.34	$29,113	$28,741	$25,517	0.99	1.13
Feb 2016	$5,551	$4,711	$4,631	0.85	1.02	$34,664	$33,453	$30,148	0.97	1.11
Mar 2016	$4,740	$4,169	$3,673	0.88	1.14	$39,405	$37,622	$33,821	0.95	1.11
Apr 2016	$5,921	$5,168	$4,141	0.87	1.25	$45,325	$42,789	$37,962	0.94	1.13
May 2016	$3,551									
Jun 2016	$3,923									
Jul 2016	$3,496									
Aug 2016	$6,108									
Sep 2016	$7,974									
PTD	$1,246,613	$1,243,055	$1,224,092	1.00	1.02					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CTD = contract to date.
EVMS = earned value management system.
FY = fiscal year.
SPI = schedule performance index.

Low-Activity Waste Facility

Milestone	Title	Due Date	Status
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2020	On Schedule
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2022	On Schedule
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2023	On Schedule

LAW = low-activity waste

The Low-Activity Waste (LAW) Facility will process concentrated low-activity waste which will be mixed with silica and other glass-forming materials. The mixture will be fed into the LAW's two melters, at a design capacity of 30 metric tons per day, and heated to 2,100 degrees Fahrenheit and vitrified into glass. The 300-ton melters are approximately 20 feet by 30 feet and 16 feet high. The glass mixture will then be poured into stainless steel containers, which are 4 feet in diameter, 7 feet tall and weigh more than 7 tons. These containers are anticipated to be disposed of on the Hanford Site in the Integrated Disposal Facility. As of April 2016, the LAW Facility was 54 percent complete overall, with engineering design 74 percent complete, procurement 71 percent complete, construction 79 percent complete, and startup and commissioning 6 percent complete.

Significant Accomplishments during the Prior Three Months:

- Installed 570 linear feet of process piping
- Installed 2,850 linear feet of conduit and pulled 33,870 linear feet of cable
- Installed 325 process area penetration seals
- Melter 1 gas barrier lid placed and welding has commenced
- Received and staged the thermal catalytic oxidizer (TCO) and ammonia dilution skid (ADS) on greater than the 48-foot (+48') elevation

Significant Planned Activities in the Next Three Months:

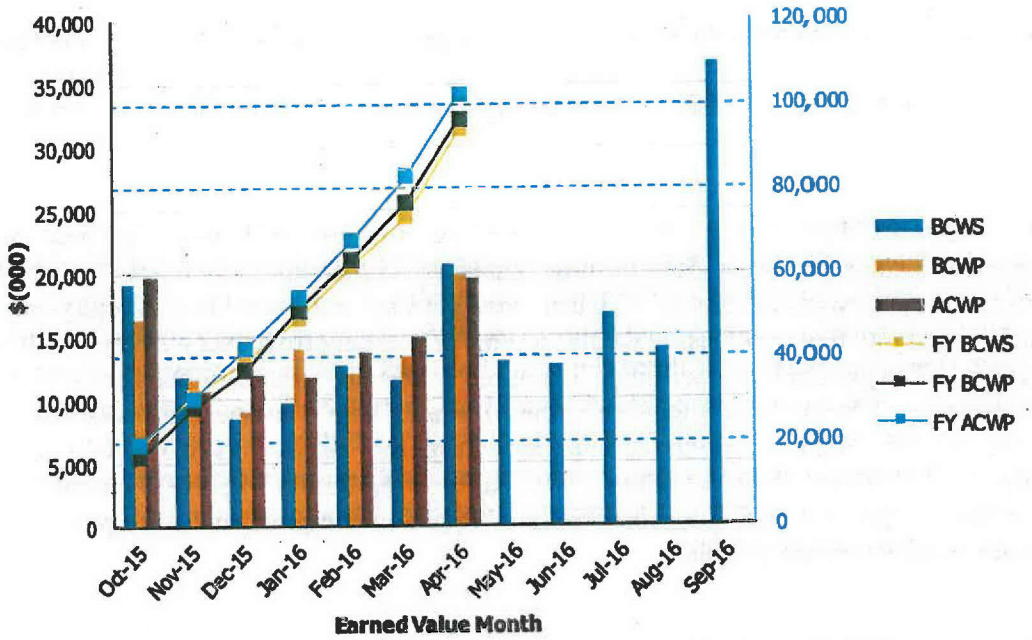
- Assemble and install Wet Electrostatic Precipitator (WESP) internals in second vessel
- Complete welding of the gas barrier lid onto melter 1
- Place second melter lid castable refractor
- Complete the radiographic testing on the caustic scrubber
- Continue the re-baselining review process
- Perform additional welds required on the melter shield lids

EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data Data as of: April 2016

River Protection Project
Low-Activity Waste Facility (WBS 1.02)

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$19,131	$16,406	$19,702	0.86	0.83	$19,131	$16,406	$19,702	0.86	0.83
Nov 2015	$11,764	$11,637	$10,735	0.99	1.08	$30,896	$28,043	$30,436	0.91	0.92
Dec 2015	$8,520	$9,132	$11,880	1.07	0.77	$39,416	$37,175	$42,316	0.94	0.88
Jan 2016	$9,694	$14,071	$11,790	1.45	1.19	$49,110	$51,245	$54,105	1.04	0.95
Feb 2016	$12,760	$12,055	$13,698	0.94	0.88	$61,870	$63,300	$67,804	1.02	0.93
Mar 2016	$11,541	$13,513	$14,986	1.17	0.90	$73,411	$76,814	$82,790	1.05	0.93
Apr 2016	$20,619	$19,828	$19,641	0.96	1.01	$94,030	$96,641	$102,431	1.03	0.94
May 2016	$13,012									
Jun 2016	$12,664									
Jul 2016	$16,791									
Aug 2016	$14,100									
Sep 2016	$36,630									
PTD	$1,312,229	$1,304,897	$1,303,920	0.99	1.00					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CTD = contract to date.
EVMS = earned value management system.
FY = fiscal year
SPI = schedule performance index.

Balance of Facilities

Milestone	Title	Due Date	Status
D-00A-12	Steam Plant Construction Complete	12/31/2012	Complete

BOF = Balance of Facilities

The Balance of Facilities (BOF) will provide services and utilities to support operation of the main production facilities: Pretreatment (PT), High-Level Waste (HLW), Low-Activity Waste (LAW), and Analytical Laboratory (LAB). As of April 2016, BOF was 57 percent complete overall, with engineering design 77 percent complete, procurement 76 percent complete, construction 84 percent complete, and startup and commissioning 17 percent complete.

Engineering activities are in progress to develop the design for BOF systems in support of direct-feed, low-activity-waste (DFLAW). Current efforts are focused on progressing the design of the Effluent Management Facility (EMF), identifying and supporting BOF system isolations, supporting procurement activities, and implementing the preliminary design safety analysis (PDSA) for the EMF into the design. Construction efforts are focused on upcoming excavation of the EMF low point drain, installation of BOF system isolations, and completion of the remaining items required for energization of the Waste Treatment and Immobilization Plant (WTP) switchgear building from the permanent power supply.

Significant Accomplishments during the Prior Three Months:

- Continued installing communications in the switchgear buildings and nonradioactive liquid waste disposal (NLD)
- Continued start-up system testing in support of site energization
- Completed installing and Underwriter's Laboratory (UL) testing of the battery monitoring systems in the switchgear buildings
- Issued Material Requisition Purchase (MRP) order for the rotary screw compressor
- Completed drilling activities and installation of vertical anodes for cathodic protection system and completed design of rectifier pad
- The DOE Office of River Protection (ORP) approved the PDSA for EMF
- Completed Fire Service Water System FSW-B-02 system turnover

Significant Planned Activities in the Next Three Months:

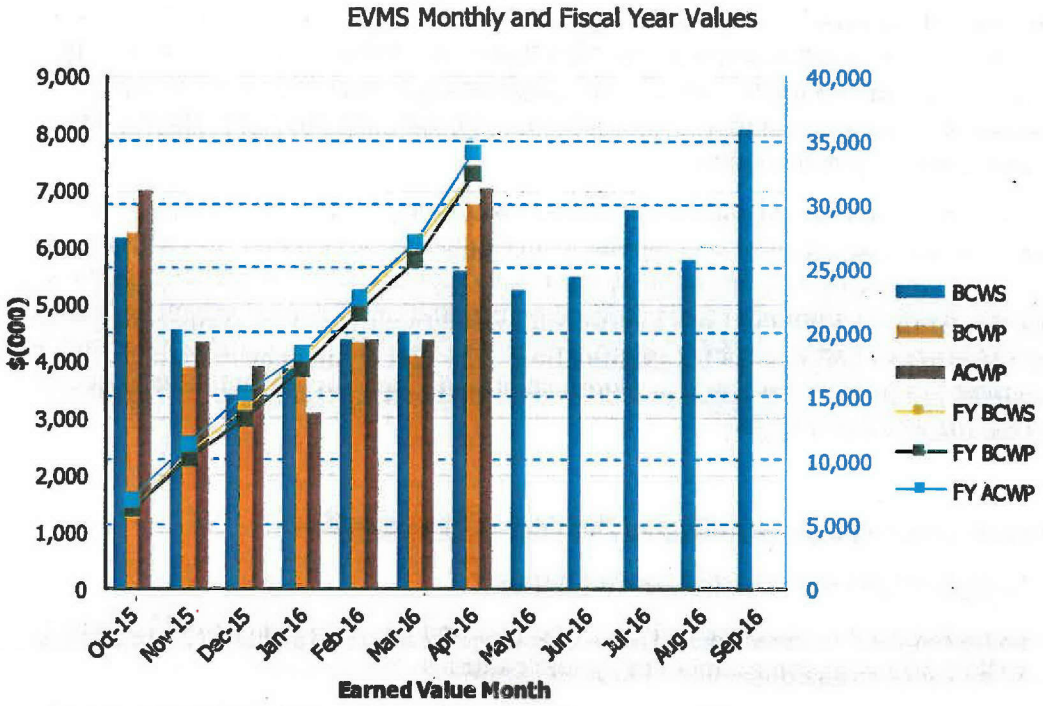
- Award subcontract for soldier piles of EMF low point drain
- Complete site energization from permanent power supply

- Perform 90 percent design review of BOF programmable protection system (PPJ) and 60 percent design review of EMF
- Receive and install rectifier for cathodic protection system
- Complete steam plant modifications for DFLAW

EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data Data as of: April 2016

River Protection Project
Balance of Facilities (WBS 1.05)



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$6,160	$6,249	$7,006	1.01	0.89	$6,160	$6,249	$7,006	1.01	0.89
Nov 2015	$4,555	$3,913	$4,344	0.86	0.90	$10,715	$10,162	$11,350	0.95	0.90
Dec 2015	$3,400	$3,134	$3,917	0.92	0.80	$14,115	$13,296	$15,267	0.94	0.87
Jan 2016	$3,874	$3,917	$3,108	1.01	1.26	$17,989	$17,214	$18,375	0.96	0.94
Feb 2016	$4,367	$4,344	$4,357	0.99	1.00	$22,356	$21,557	$22,732	0.96	0.95
Mar 2016	$4,492	$4,111	$4,381	0.92	0.94	$26,848	$25,668	$27,113	0.96	0.95
Apr 2016	$5,581	$6,780	$7,042	1.21	0.96	$32,429	$32,448	$34,155	1.00	0.95
May 2016	$5,233									
Jun 2016	$5,487									
Jul 2016	$6,648									
Aug 2016	$5,793									
Sep 2016	$8,092									
PTD	$461,924	$457,649	$457,777	0.99	1.00					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CTD = contract to date.
EVMS = earned value management system.
FY = fiscal year
SPI = schedule performance index

Analytical Laboratory

Milestone	Title	Due Date	Status
D-00A-05	LAB Construction Substantially Complete	12/31/2012	Complete

LAB = analytical laboratory

The Analytical Laboratory (LAB) will support Waste Treatment and Immobilization Plant (WTP) operations by analyzing feed, vitrified waste, and effluent streams. As of April 2016, the LAB was 59 percent complete overall, with engineering design 78 percent complete, procurement 88 percent complete, construction 94 percent complete, and startup and commissioning 12 percent complete.

During this reporting period engineering efforts were focused on LAB system reviews to evaluate potential modifications or isolations in support of direct feed, low-activity waste (DFLAW). Closure of nonconformance reports and construction deficiency reports continued. Construction efforts within the LAB focused on installation of the test engineers work station to support Balance of Facilities (BOF) startup efforts. The remaining construction work scope will be completed in parallel with system modifications and construction activities required to support the direct feed of LAW.

Significant Accomplishments during the Prior Three Months:

- Completed fire service water system turnover
- Completed the fire detection (FDE) Acceptance Test. The final test (24-hr drawdown test) will be following replacement of system batteries
- Continued installation of the test engineers workstation – installed and tested fiber
- Continued development of procedures for the WTP analytical methods development process

Significant Planned Activities in the Next Three Months:

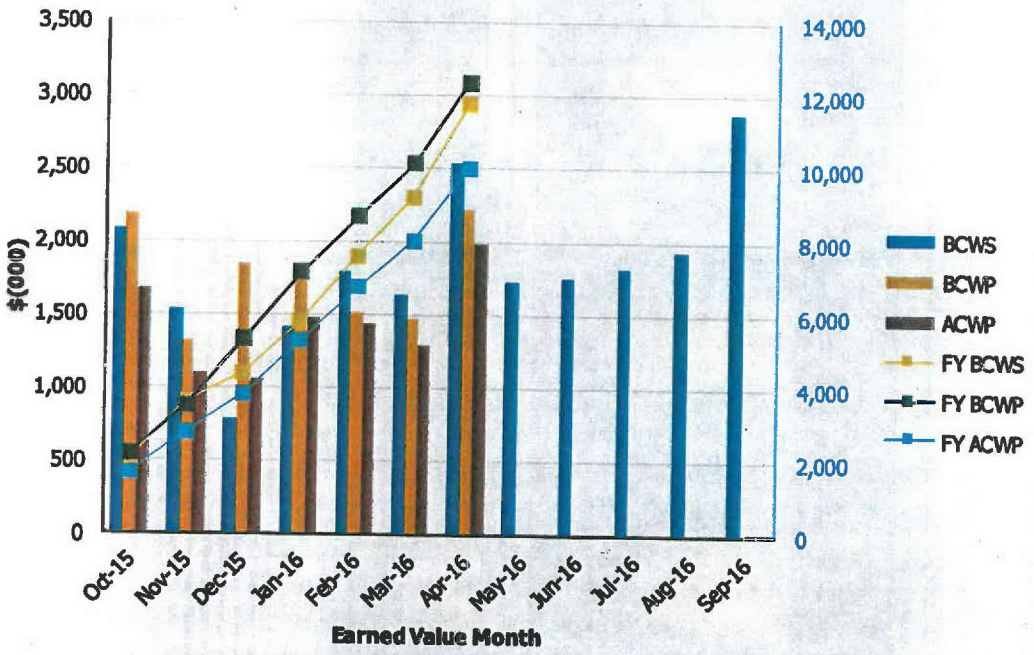
- Complete test engineers work station
- Initiate component level testing of select LAB systems
- Complete LAB system walk downs and design in support of DFLAW modifications

EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data Data as of: April 2016

River Protection Project
Analytical Laboratory (WBS 1.06)

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	$2,083	$2,188	$1,674	1.05	1.31	$2,083	$2,188	$1,674	1.05	1.31
Nov 2015	$1,528	$1,324	$1,093	0.87	1.21	$3,611	$3,513	$2,768	0.97	1.27
Dec 2015	$789	$1,844	$1,060	2.34	1.74	$4,399	$5,356	$3,827	1.22	1.40
Jan 2016	$1,415	$1,797	$1,472	1.27	1.22	$5,815	$7,153	$5,299	1.23	1.35
Feb 2016	$1,786	$1,511	$1,438	0.85	1.05	$7,601	$8,665	$6,738	1.14	1.29
Mar 2016	$1,628	$1,478	$1,291	0.91	1.15	$9,229	$10,143	$8,028	1.10	1.26
Apr 2016	$2,541	$2,223	$1,990	0.87	1.12	$11,770	$12,366	$10,019	1.05	1.23
May 2016	$1,725									
Jun 2016	$1,758									
Jul 2016	$1,821									
Aug 2016	$1,936									
Sep 2016	$2,880									
PTD	$324,336	$323,285	$318,367	1.00	1.02					

ACWP = actual cost of work performed.
BCWP = budgeted cost of work performed.
BCWS = budgeted cost of work scheduled.
CPI = cost performance index.
CTD = contract to date
EVMS = earned value management system
FY = fiscal year
SPI = schedule performance index

Waste Treatment Plant Project Percent Complete Status (Table)

Waste Treatment Plant Project - (LBL/Project Services) Percent Complete Status
Through April 2016

(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars			Project Management & Shared Services Unallocated Dollars		
Facilities	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Low-Activity Waste	2,260.3	1,229.9	54%	538.4	398.7	74%	372.1	285.2	77%	859.2	520.9	79%	706.5	40.0	6%	4.0	4.0	100%
Balance of Facilities	756.4	429.9	57%	149.9	115.6	77%	71.4	54.6	76%	254.4	213.0	84%	280.1	46.3	17%	0.5	0.5	100%
Analytical Lab	530.7	315.3	59%	106.2	82.4	78%	65.4	57.4	88%	160.7	151.8	94%	199.0	23.3	12%	0.5	0.5	100%
Direct Feed LAW	373.9	41.8	11%	80.1	32.1	40%	57.0	1.1	2%	227.7	6.0	3%	0.0	0.0	0%	9.0	2.6	29%
LBL Facility Services	609.8	105.6	17%	0.0	0.0	0%	57.1	15.8	28%	129.0	21.2	16%	264.6	33.9	13%	159.1	34.77	22%
Total LBL	4,550.9	2,122.6	47%	874.6	628.7	72%	623.0	394.0	63%	1,431.0	913.0	64%	1,449.2	143.5	10%	173.1	42.3	24%
Project Services	368.8	301.8	82%	53.7	42.7	79%	34.9	28.0	80%	69.2	63.3	91%	1.7	1.7	100%	209.3	165.9	79%
Total Project Services	368.8	301.8	82%	53.7	42.7	79%	34.9	28.0	80%	69.2	63.3	91%	1.7	1.7	100%	209.3	165.9	79%
Total LBL, DFLAW & Project Services	4,919.7	2,424.2	49%	928.2	672.4	72%	658.0	422.0	64%	1,500.3	976.4	65%	1,450.9	145.2	10%	382.3	208.3	54%
PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts)																		
High-Level Waste	1,478.6	922.1	62%	364.4	325.2	89%	433.9	349.4	81%	561.1	243.2	43%	119.2	4.4	4%	n/a	n/a	n/a
Pretreatment	2,517.3	1,410.5	56%	761.7	645.8	85%	679.9	380.4	56%	890.0	378.6	43%	185.8	5.6	3%	n/a	n/a	n/a
Shared Services	4,726.9	3,632.6	77%	1,047.0	977.9	93%	451.7	395.0	87%	1,436.5	1,143.0	80%	453.5	133.2	29%	1,338.1	983.5	73%
Total HLW/PT/SS	8,722.8	5,965.2	68%	2,173.1	1,948.9	90%	1,565.5	1,124.8	72%	2,887.6	1,764.8	61%	758.5	143.2	19%	1,338.1	983.5	73%
Undistributed Budget	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	13,642.5	8,389.4	61%	3,101.3	2,621.3	85%	2,223.5	1,546.8	70%	4,387.9	2,741.2	62%	2,209.4	288.4	13%	1,720.4	1,191.8	69%

Source: Preliminary WTP Contract Performance Report - Format 1, Data for April 2016

Note: In September 2012, the LBL Region was incorporated into the project OTB baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the PT/HLW/SS Interim Work Plan was incorporated into the project OTB baseline resulting in decreases to the PT/HLW/SS facility budgets, this was due to a work scope shift from the Distributed budget to UB. Percent Complete Values shown for PT, HLW and SS have been frozen with the September 2012 values due to the Interim Work Plan and budgets being moved into UB. UB value for the project for PT/HLW/SS is $2,014M. The percent complete values for the Total WTP are the current total LBL BCWP added to the frozen HLW/PT/SS BCWP values. In March 2014, Project Controls and Project Management work scope was moved out of Shared Services control accounts into the facilities with new control accounts being set up in the facilities. These will now be seen under Project Management/Shared Services by facility. The Shared Services PMB value has not been changed to reflect this change due to the freeze on HLW/PT and SS and the budgets remaining in UB. October 2014 data reflects the incorporation of Direct Feed LAW and the split of Shared Services into LBL Facility Services and Project Services. March 2016 LBL percent complete data is a total of LAW-BOF-LAB-DFLAW and LBL Facility Services. The Project Services Allocation account (PSA), as shown on the CPR Format 1, is not added to LBL for percent complete purposes.